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THE AMERICAN ELEVATOR AND GRAIN TRADE

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
Mitchell Brothers Publishing Co.

Vol. XXXIV.

CHICAGO, ILLINOIS, DECEMBER 15, 1915.

No. 6.

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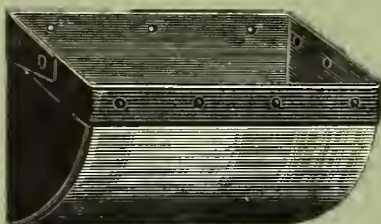
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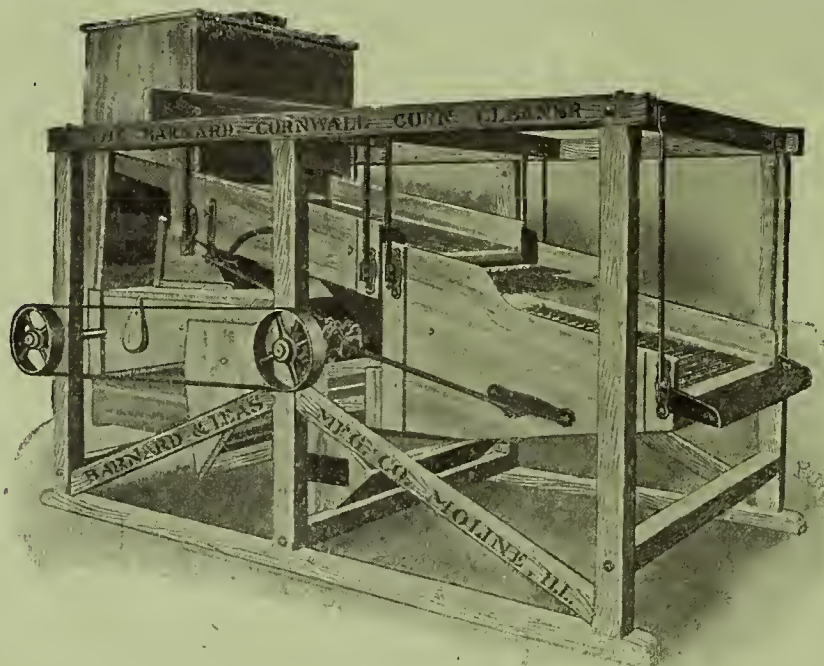
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Is known wherever corn is grown as the standard sheller. It shells corn economically, efficiently and easily.

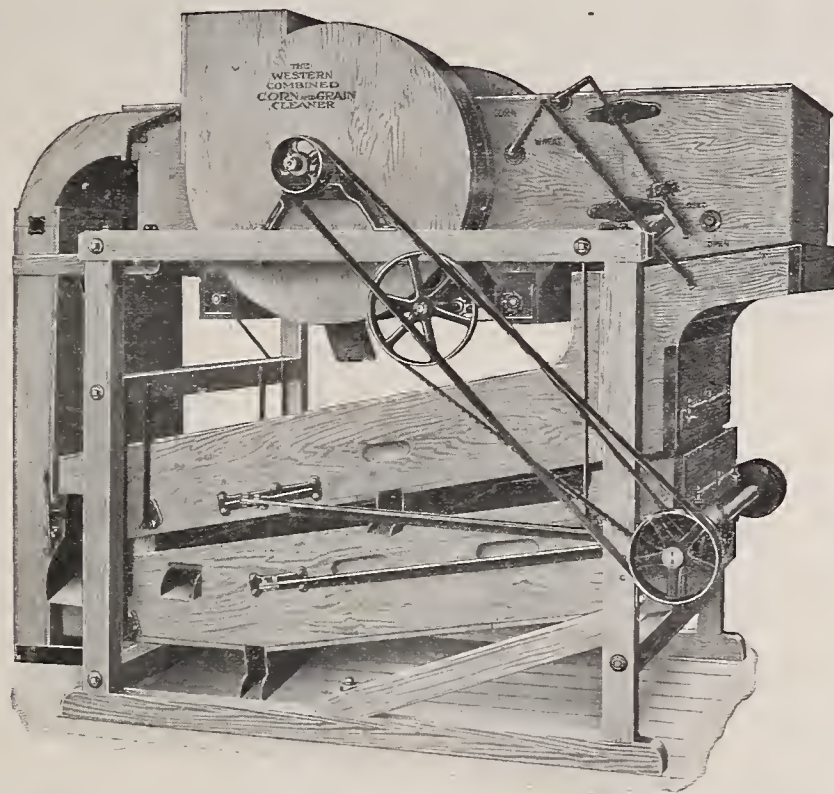
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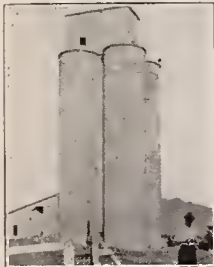
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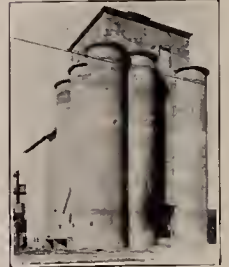
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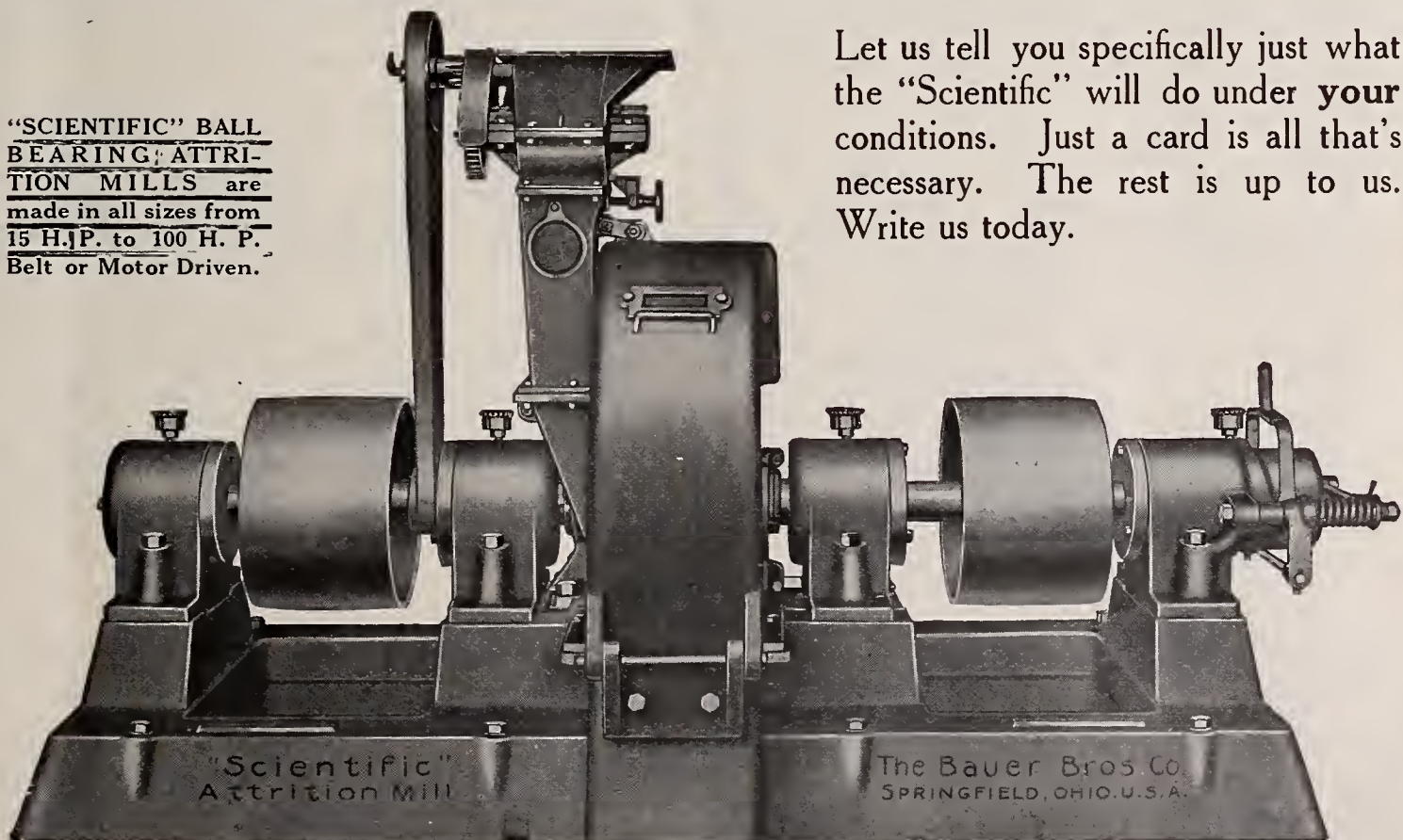
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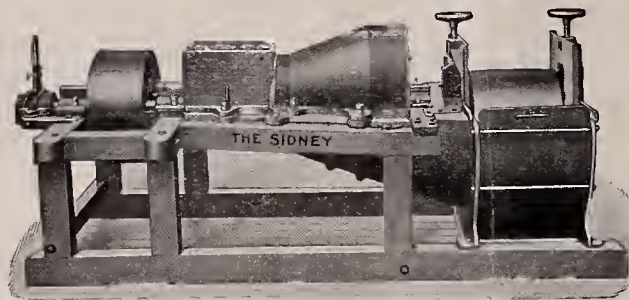
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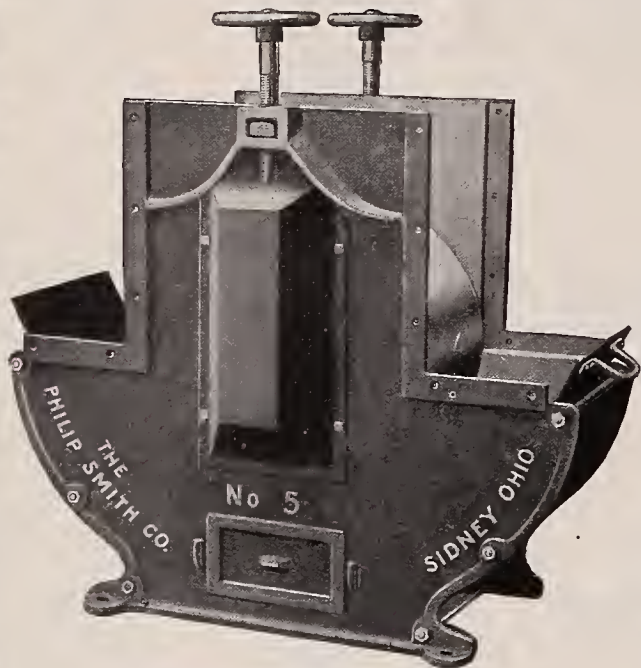
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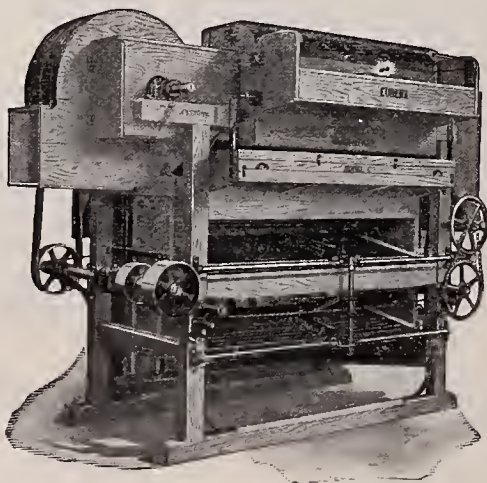
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The Spaulding Elev. Co.
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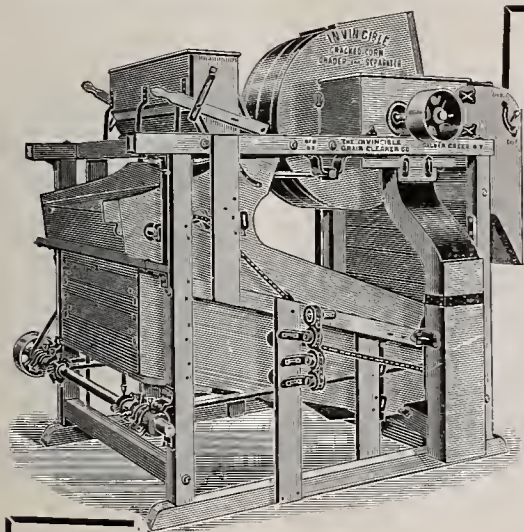
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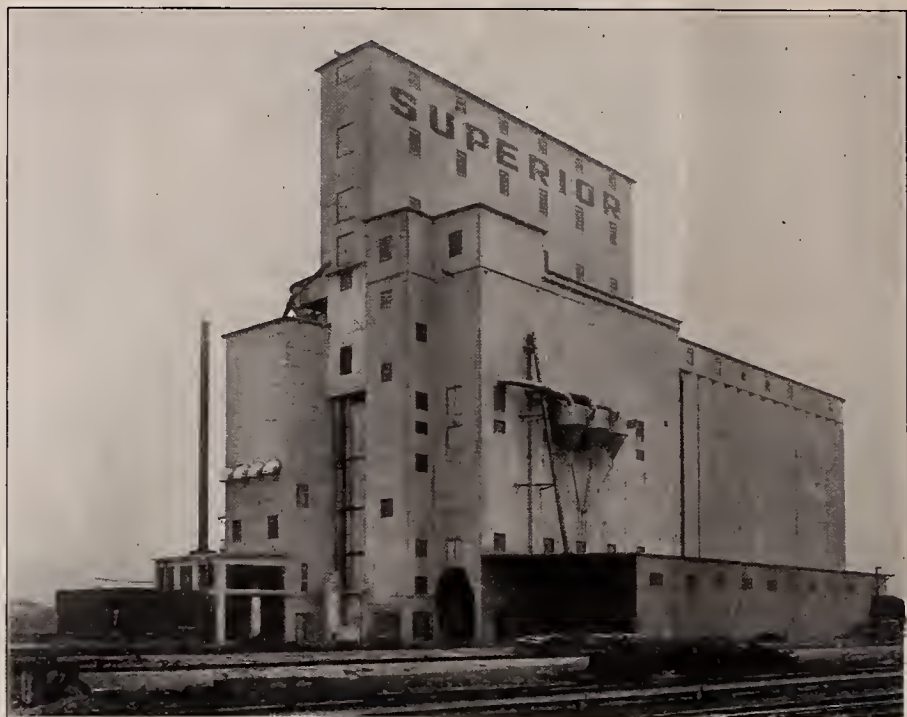
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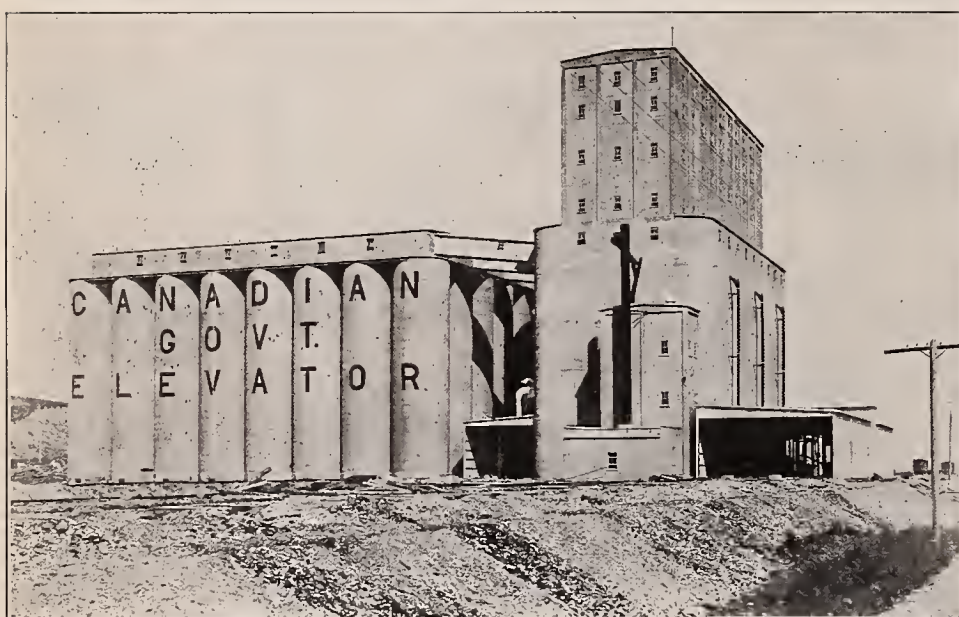


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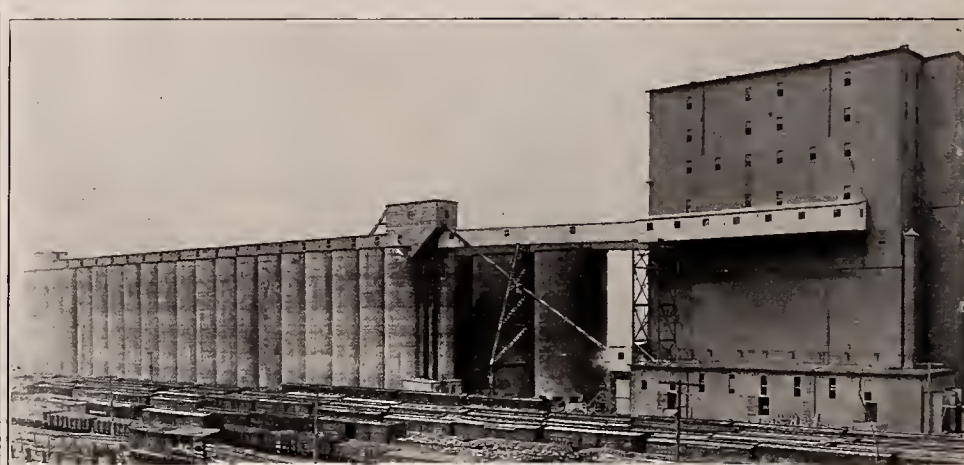
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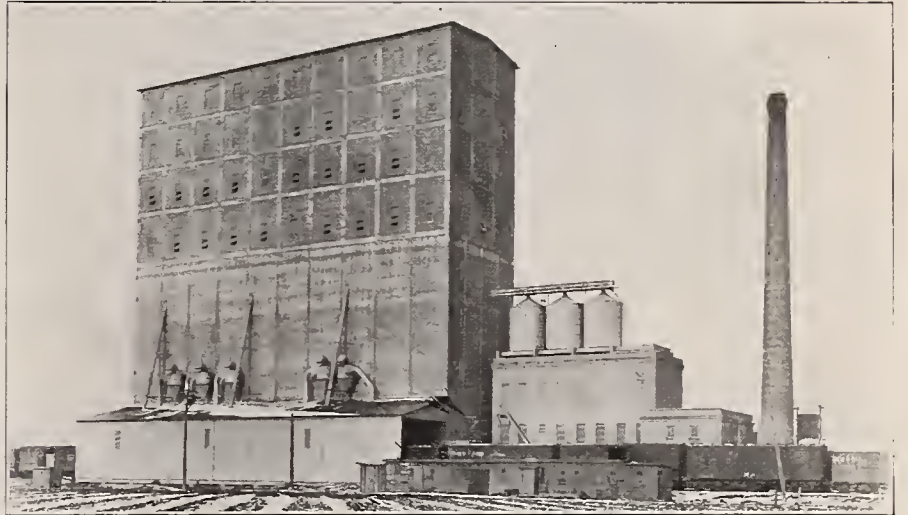
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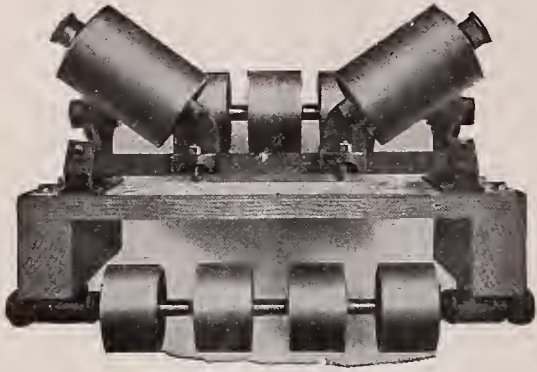
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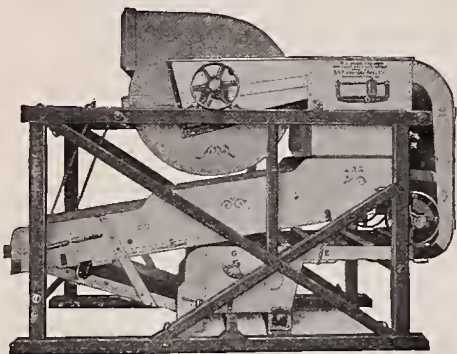
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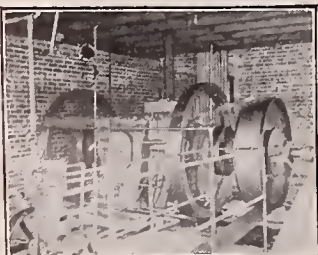
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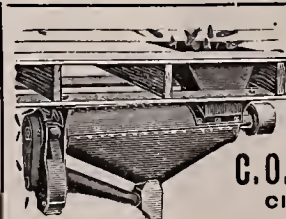
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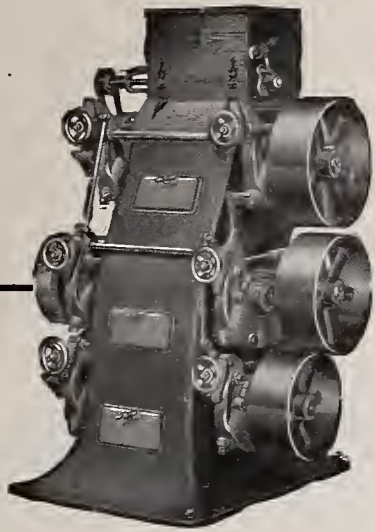
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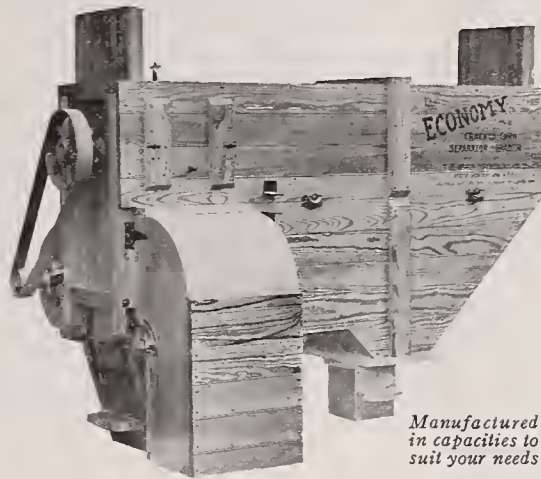
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KENNEDY Car Liners

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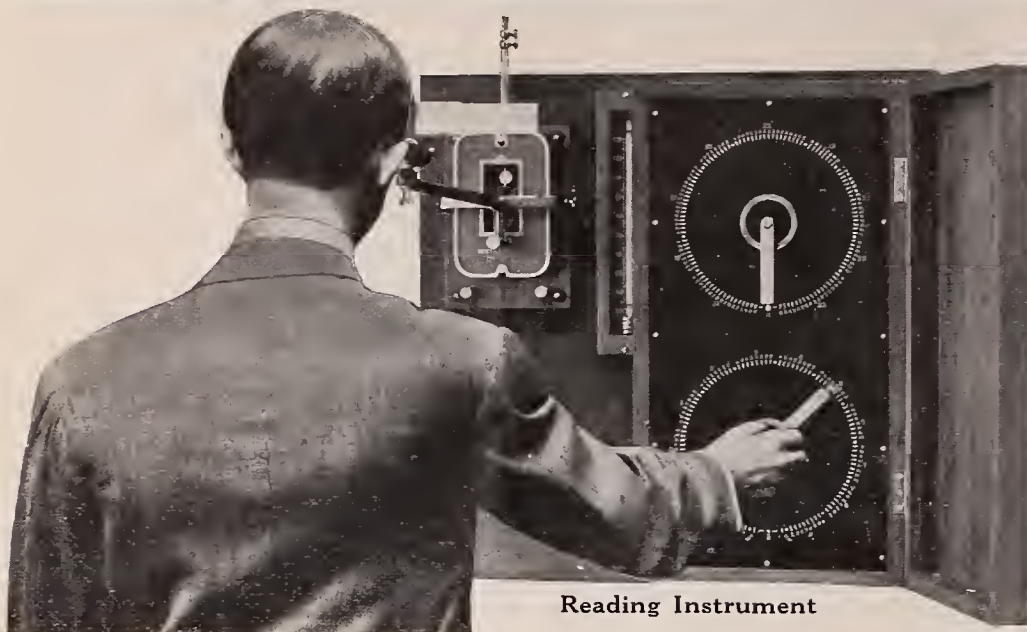
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Now installed in

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CHICAGO**This Means Much To You**

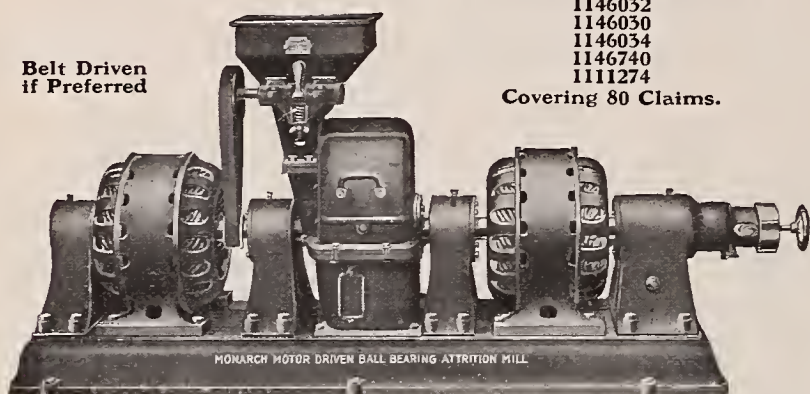
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812 Great Northern Building,

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They All Point to the Bowsher

A mill that will crush or grind ear corn (with or without shucks), Kaffir in the head and all kinds of small grain.

A mill that has conical shaped grinders—which do the work close to the center of the shaft, thus effecting a great saving of power.

A mill that can run empty without injury, as the grinders will not strike together.

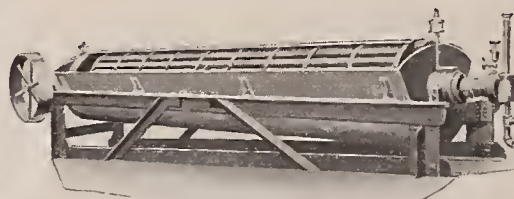
A model feed mill, light running and handy to operate; different from all others. A complete independent outfit.

These are a few of the many reasons why the Bowsher is the mill for you.

Sold with or without elevator. 10 sizes, 2 to 25 H. P.

N. P. Bowsher Co., South Bend, Indiana
 SEE THAT YOUR CONTRACT CALLS FOR
THE CUTLER MEAL DRYER

SOLD BY ALL MILL FURNISHERS


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All Metal Steam Dryer.

IN SUCCESSFUL USE 40 YEARS DRYING
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ALSO SAND, COAL DUST, GRAPHITE, CLAY, ORES, ETC.

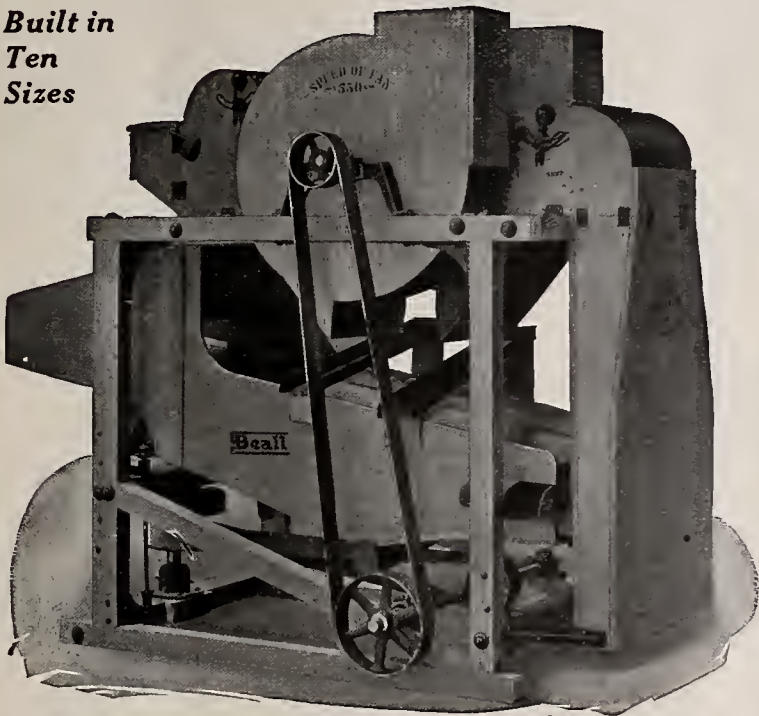
Automatic in operation, requiring no attention.

THE CUTLER CO., North Wilbraham, Mass.

CATALOG ON REQUEST

A masterpiece achievement in separator efficiency is the

Built in
Ten
Sizes



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Rotating Warehouse and Elevator Separator *Guaranteed Without Limit*

The New Beall Rotating Warehouse Elevator Separator stands out among the different types of separators on the market today as the most attractive and best buy in grain separators and grain cleaners. It is extremely simple in design, built very strong, is thoroughly braced and will not rack. It insures economical and reliable service that year in and year out will return dollar for dollar on investment.

The New Beall embodies all the best features found in separators of other makes and to these we have added the following pronounced features:

- 1st. It has a rotating motion, slow speed and perfect balance.
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- 3rd. It has large capacity for the amount of floor space.
- 4th. A small amount of horse power is required for operating.

It will pay you to write for a complete descriptive catalogue and prices, or better let us send you a separator on a 30 days' trial and let it prove to you its merits by its own work. Do it today. We take all the risk.

The Beall Improvements Co., Inc., Decatur, Illinois

*Wishing You the Compliments
of the Season*

J. C. SHAFFER & COMPANY
GRAIN MERCHANTS

Consignments Solicited

234 South La Salle Street
CHICAGO

ADVERTISEMENT

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their Office, Suite 200, New Orleans Court Building, until December 29, 1915, at 8:00 P. M., and then publicly opened, for the construction of a reinforced concrete elevator of about 1,000,000 bushels capacity with its equipment except as specified, and including marine tower and about 1,500 feet of conveyor galleries, located in the City of New Orleans, on the east bank of the Mississippi River, approximately between Soniat and Valmont Streets.

A deposit of \$25,000 in cash or certified check is required with proposal. Bond of \$300,000 required with contract.

Payments monthly to the extent of ninety per cent (90%) of the Engineers' estimate of work accomplished, including allowance for a reasonable stock of material.

On and after December 1, 1915, plans and specifications will be on file at the office of Ford, Bacon & Davis, No. 921 Canal St., New Orleans, La., by whom full sets will be furnished to prospective bidders on deposit of \$100.00 which will be refunded to depositors who submit proposals and return sets in good condition. To depositors who do not submit proposals, \$80.00 will be refunded on return of the sets in good condition.

The right is reserved to reject any and all bids and to waive informalities.

(Signed) ERNEST M. LOEB,
President.

ADVERTISEMENT.

NOTICE TO CONTRACTOR.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200, New Orleans Court Building, until December 29, 1915, at 8 o'clock P. M. for the following equipment for the Public Grain Elevator in New Orleans. Proposals for each item of equipment will be opened separately, and each proposal must be accompanied by cash or certified check as indicated:

CONVEYING AND ELEVATOR BELTING.

For the furnishing, F. O. B. New Orleans, of approximately 15,000 lineal feet of elevator and conveyor belting from 22" to 40" wide of 5, 6 and 7 ply.

Deposit with proposal, \$2,000.00 in cash or certified check.
Bond with contract, \$10,000.00.

ELECTRIC FREIGHT ELEVATOR.

For furnishing and installing a 2000 pound capacity electrically operated freight elevator.

Deposit with proposal, \$500.00 in cash or certified check.
Bond equal to total amount of contract.

ALTERNATING CURRENT MOTORS.

For furnishing, F. O. B. New Orleans, forty-eight (48) 3 phase, 60 cycle, 440 volt, alternating current motors from 3 to

150 horse power. Also sliding bases and starting compensators as may be required.

Deposit with proposal, \$1,000.00 in cash or certified check.
Bond with contract, \$6,000.00.

2000 BUSHEL SCALES.

For furnishing and erecting seven (7) 2000 bushel capacity grain hopper scales of the trussed lever type.

Deposit with proposal, \$500.00 in cash or certified check.
Bond with contract, \$2,500.00.

SEPARATOR AND OAT CLIPPER.

For furnishing, F. O. B. New Orleans, one 1200 to 3500 bushel per hour capacity elevator separator and one 1500 bushel per hour capacity oat clipper.

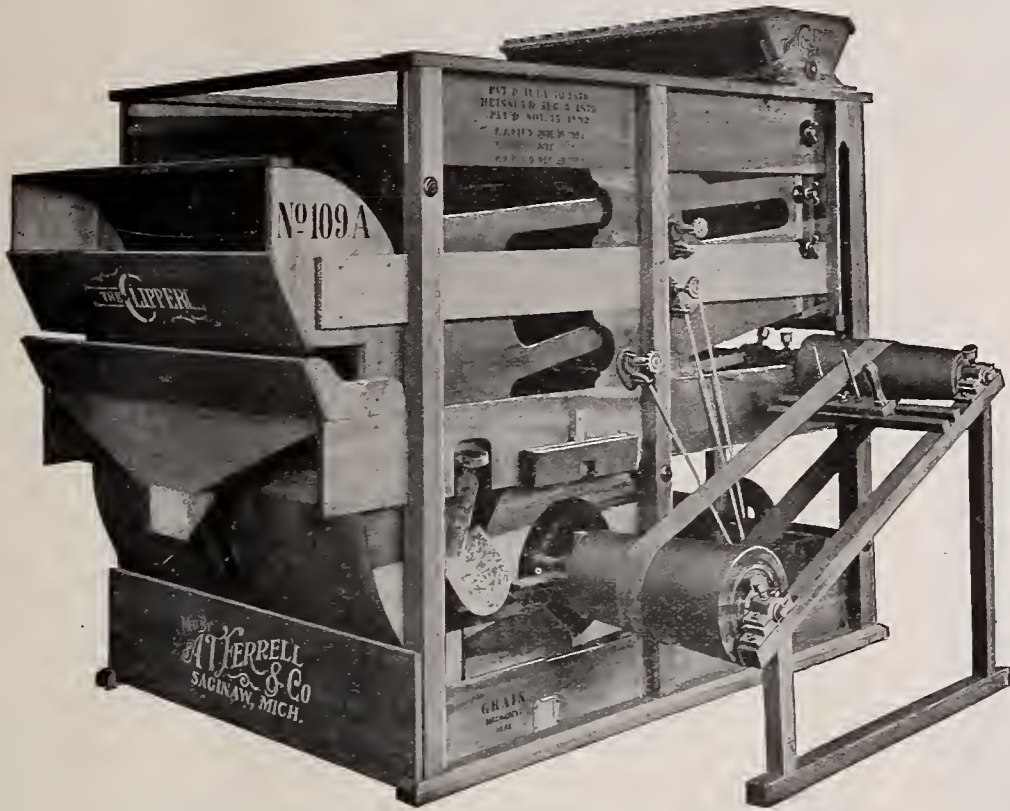
Deposit with proposal, \$150.00 in cash or certified check.
Bond with contract, \$1,000.00.

On and after December 8, 1915, plans and specifications for the foregoing items will be on file at the office of Ford, Bacon & Davis, 921 Canal Street, New Orleans, La., by whom full sets will be furnished to prospective bidders on a deposit of Ten Dollars (\$10.00). This amount will be refunded to all bidders who submit proposals, and return said sets in good condition to the Engineers. To bidders who do not submit proposals, Five Dollars (\$5.00) will be refunded upon return of plans and specifications as above.

The right is reserved to reject any and all bids.

(Signed) ERNEST M. LOEB, *President.*

The No. 109-A "Clipper" Cleaner



Write for Latest catalog and prices

is unequalled for handling all kinds of field seeds and grain in local elevators. It is excellent for grading seeds or seed grain, as it carries four screens—three full length and one half length—with our Traveling Brushes on the three lower screens. The Brushes enable you to keep the machine working to its full screen capacity all the time.

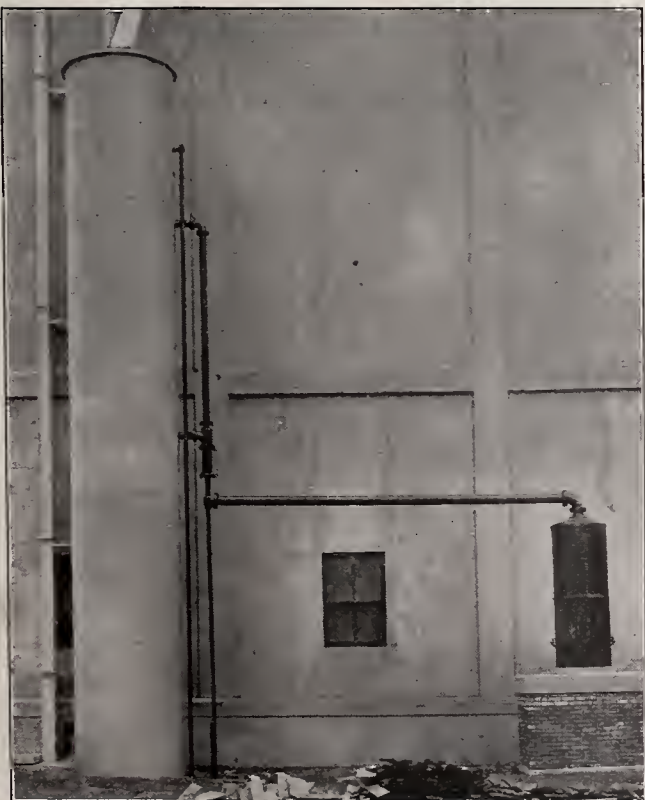
It is equipped with our Special Air Controller for regulating the vertical blast, which is a desirable feature. It is very light running, strongly built, easily installed and simple in operation.

We guarantee this machine to give perfect satisfaction on Clovers, Timothy or any other kind of field seed or grain, and it can be operated with one-fourth the expense for power of any suction cleaner of equal capacity. If you are looking for a first class, up-to-date Cleaner of good capacity we should be glad to send you catalog with prices and discounts upon request.

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THE ELLIS DRIER COMPANY

CHICAGO ILLINOIS
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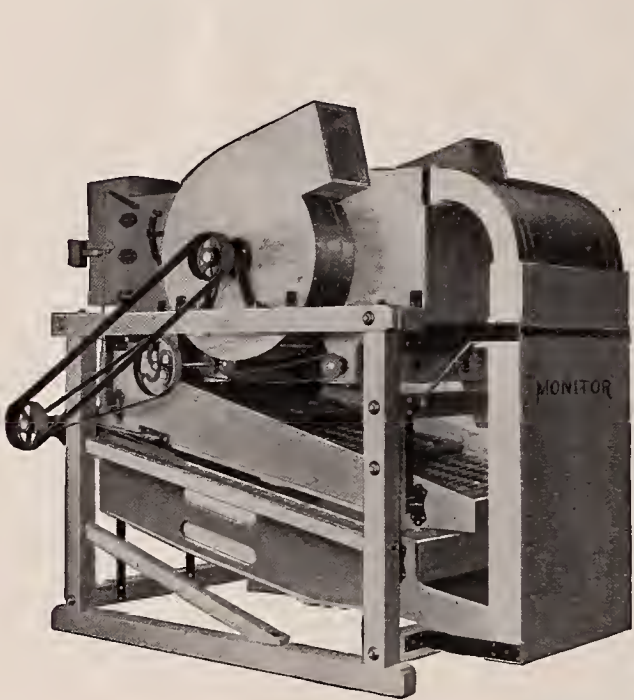
Bleacher Tower Erected for Saginaw Milling Company,
Saginaw, Michigan

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Our six years' experience in the erection of oat bleachers in all parts of the U. S. has placed us in a position to serve you in a most effective manner.

Are you prepared to cope with this year's oat crop? You are most decidedly NOT prepared unless equipped with an ELLIS OAT PURIFYING SYSTEM. The ten essential United States Letters Patent covering the process of oat bleaching are controlled by this company.

The Ellis Drier Company
Postal Telegraph Building, Chicago, Illinois



Monitor

**The First-Ever
"COMBINED"**

Corn & Grain Cleaner

The original Combined Cleaner—patented. In heavy construction, refined workmanship and finish, perfect ease of operation, air and screen cleaning efficiency, and real, visible economy to the user, it stands without a rival.

Patented—

**If you need two—
and can afford only one**

this *exclusive* style of 2-in-1 Cleaner means a lot to you, as it does to 1000 satisfied users—

**Most in
cleaning—
Least in space
power and
expense**

Now, as for ten years, we offer the best buy in a Cleaner for handling two kinds of cleaning work. This "Monitor" carrying two separate sets of screens, one for corn in one shoe, one for oats, wheat or small grain in the other shoe, insures the maximum of quick action and simplified service in the Elevator handling more than one kind of cleaning. A few minutes of your time reading our literature will quickly convince you this is the ideal Cleaner—an outfit better and different to anything offered today for simplifying and economizing cleaning work where quick shifts from one kind of cleaning to another are necessary. Our literature sent free on request.

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A monthly journal devoted to the elevator and grain interests.

Official paper of the Grain Dealers' National Association and of the Illinois Grain Dealers' Association.

Established in 1882.



Published on the fifteenth of each month by Mitchell Bros. Publishing Co., 431 So. Dearborn St., Chicago, Ill.

Subscription price, \$1.00 per year.

English and Foreign subscriptions, \$1.75 per year.

Established in 1882.

VOL. XXXIV.

CHICAGO, ILLINOIS, DECEMBER 15, 1915.

No. 6.

What Initiative Has Done for Water Transportation

Kansas City Interests Revive Missouri Traffic in Grain—Growth of Business in Three Years Enormous—Additional Equipment Needed—Modern Methods Prove a Success

By GEORGE E. QUISENBERRY

A FEW years ago the business men and newspapers of Kansas City went out to raise a million dollars in thirty days with which to operate a publicly-owned boat line between that city and St. Louis on the Missouri River. They not only succeeded in this little chore, but returned with an additional \$200,000 on top of the amount for which they had hoped. Boats were purchased and built, terminals constructed and actual navigation started.

That was five years ago. This year, in the season that ended with the low water period late in November, some 2,400 full carloads of freight—31,984 tons—were handled between the two cities, approximately half of which was grain and

grain products upon which the shipper saved from 1.6 to 1.8 cents a hundred pounds under the rail rates. The grain trade, consequently, has profited more than any other branch of business from the investment Kansas City made in the swirling, muddy waters of the Missouri.

The grain movement, of course, from Kansas City to the east and south for export shipment at New Orleans is tremendous. Nothing approaches in volume the flood of wheat, flour, corn, alfalfa and other products of the farm that roll into the elevators and mills of Kansas City from the empire of the Southwest—western Missouri, Kansas, Oklahoma, northern Texas, the Panhandle, Colorado and southern Nebraska. And it is largely to handle

this movement that the river fleet has been built.

The Kansas City line handles all its freight with tow boats and barges. The old packet boat on which the cargo was placed on after deck and fore deck has been discarded. A small, powerful steamer, built to a draft of less than four feet, chugs up and down stream, picking up loaded barges, dropping empty ones at landings where freight awaits, always on the go and never stopping for two or three days while roustabout negroes load and unload the cargo. This is the modern system and with electric cranes and conveyors at the terminals, navigation costs have been cut to such an extent that a straight cut of 20 per cent under the rail rates does not spell bankruptcy.



PART OF THE FLEET OF KANSAS CITY'S PUBLICLY OWNED RIVER LINE, ASSEMBLED AT THE HOME PORT

The Missouri River fleet is composed of twelve barges and two tow steamers. All of the barges are built of steel, with eight or twelve fire-proof compartments in which hatches are opened for the crane or loading machinery. Grain may be carried in bulk and unloaded with suction pumps or bucket conveyors. However, elevators have not yet been constructed along the river bank and all

plantation songs. Oil for fuel has supplanted rosin and pine and coal. Overhead costs have been reduced and plans have even been made for operating the boats by wireless from a central station.

Each year since navigation was resumed the tonnage carried has doubled. This year the total was 31,984 tons. The previous year it was 13,677 and the year before that somewhat less than 8,000. The

are adulterated under the Food and Drugs Act. In considering whether any lot of oats contain added moisture, the Department is guided by the facts relating to that particular lot and not by the moisture content of other individual lots, nor by the average moisture contents of the crop of oats for that entire year. It is, however, not the practice of the Department to recommend seizures or prosecutions on account of added moisture in oats as a result of bleaching, unless such added moisture exceeds 1 per cent.

Second. The changing of the color or appearance of oats by treatment with sulphur fumes presents a question as to the application of the part of paragraph 4 of section 7 of the Food and Drugs Act, "in case of food," by which articles of food are declared to be adulterated if they be "mixed, colored, powdered, coated or stained in a manner whereby damage or inferiority is concealed."

This prohibition is not a general prohibition against coloring. Under it only those oats are adulterated which are damaged or of inferior quality and which have the damage or inferior quality concealed by the bleaching.

The Department is informed that the bleaching of oats does not always conceal damage, but sometimes makes it apparent. In other cases, it is claimed that the bleaching of damaged or inferior oats serves to remove the damage or inferiority rather than to conceal it. Whether or not the bleaching of oats as commonly practiced conceals damage or inferiority cannot be finally decided on the facts now available. Investigations are being conducted, however, with the object of obtaining adequate information on which the Department may reach a conclusion as to whether the bleaching of oats conceals damage or inferiority under all conditions, or, if not under all conditions, under what conditions. Pending the conclusion of these investigations and the announcement of the results thereof, the Department will not recommend proceedings under the Food and Drugs Act solely upon the ground that oats which have been bleached with sulphur fumes have been colored or stained in a manner whereby damage or inferiority is concealed, provided that in the case of bulk shipments of oats, the fact that they have been bleached with sulphur dioxide is shown on invoices, bills of lading and inspection certificates, whenever such certificates are issued, by using the terms "bleached with sulphur dioxide," "sulphur bleached" or "sulphured;" and, in the case of shipments in bags, the bags are plainly marked to the same effect. The term "purified," "purified with sulphur process" and the like, are misleading and are, therefore, not regarded as being proper designations of these products. The Department will not hesitate, however, to recommend proceedings under the Act, without notice, if it appears that the conditions herein specified are not complied with, or if it appears that the bleaching of oats results in actual fraud.

Third. The Department is of the opinion that oats



MODERN ROUSTABOUT OF THE RIVER
Electric Conveyor at the East St. Louis Terminal of the Kansas City Line.

grain now is handled in sacks. The renaissance of navigation on the Missouri has been too recent to have attracted building companies.

Practically all of the through shipments consist of alfalfa products and flour. The corn and wheat shipments originate from the farmers along the river bank and are shipped to St. Louis or Kansas City where they go into elevators. Small barges of a maximum load of two hundred tons have been built to handle this business and they are towed to the landing place, loaded by roustabout power, and then picked up by the next passing steamer within two or three days.

The flour and wheat shipments from here all are sacked. They are delivered to the wharf on railroad cars on which the switch charges are absorbed by the boat line and the sacks swung in great rope baskets into the cargo holds of the barge. At the other end, they are unloaded by the same system and delivered directly into the waiting freight cars that carry them onward to the port for export shipment or, in the case of alfalfa, to the feeding centers of the South and East.

The Kansas City line has filed established water and rail rates to Norfolk for the export trade. It has gone after this business and obtained so much of it during the past season that many shipments were turned down because of physical inability to carry them. To overcome this situation, plans and specifications have been drawn for an additional tow boat to cost \$150,000 for construction next year, and four new barges have just been added to the equipment.

Two of them were completed in time to be used in the fall end of this season. The other two now have been launched and will be in actual service when navigation opens in March.

Steam boating on the Missouri is a different proposition than it was 50 years ago. Then the high freight rates and the lack of railroad competition made boating profitable under any sort of a management. Sometimes boats paid for themselves in two or three trips. But, at best, the system was wasteful and thousands of dollars of excess costs were paid by the carriers through extravagant methods.

Now it is different—on the Missouri, at least. The tow boat system has developed a greater carrying capacity at a smaller cost per ton-mile. Electricity has done away with the expensive negro roustabout who drew 20 cents an hour for loafing and singing

Federal Government has expended millions in improving the tortuous, shifting channel and, the river made safer, the time of the round trips has been cut until last summer a two-day service down stream and four days up was inaugurated.

SULPHURED OATS SETTLED

In a letter addressed to Lee G. Metcalf, president of the Grain Dealers' National Association, Secretary David F. Houston, on November 29, outlined the position of the Department of Agriculture in regard to sulphured oats and, incidentally, to admixtures of other grains. The ruling is clear cut



STEAMER "CHESTER" LOADING SACKED WHEAT AT A COUNTRY LANDING

and decisive and relieves the trade of all uncertainties. The ruling is a direct result of the recent hearing in Washington, reported in the November issue of the "American Grain Trade," and clears up all of the controversial points which were taken up at the hearing. Secretary Houston says:

Full consideration has been given to your representations; you are advised that the Department's views are as follows:

First. Oats which, at the time of shipment in interstate or foreign commerce, contain moisture which has been added by bleaching or other artificial treatment,

containing not over 5 per cent of barley or other grain, which has not been added to the oats after they were harvested, but which was present with the oats in the field, may be designated "oats." The Department is further of the opinion that oats with which barley or other grain has been mixed after harvesting are adulterated and misbranded, if they are labeled and sold as oats. Such a mixture should be sold, billed (including all railway records), invoiced and labeled (in case a label is used) as a mixture of oats and the added grain. It is believed that the names of the grains present in the mixture should be given in the order of their weights, beginning with that which is present in the largest amount.

What Would Be Acceptable Standards in Grain?

Standards Necessary for Proper Marketing—Importance of Moisture Content—Control of Dirt and Mixtures—Smut Must Be Eliminated

By DR. J. W. T. DUVEL*

THE grain business, in all of its phases, has assumed such immense proportions that the demand for standard grades, that can be uniformly applied, has become almost universal. Acceptable standards must embody some definite description of the more important factors taken into consideration in the grading of grain.

These standards must be such that the producers, the dealers, the consumers and all interested parties may know "the length of the yardstick" by which the grade of the grain in which they are interested is to be measured. It is also essential that this measure be uniform and definite; the same in

meet the requirements, but not until the good grain commands the premium to which it is entitled.

BASIS FOR STANDARD GRADES

In fixing the standard grades for corn, which have been in effect since July 1, 1914, it was the aim to provide definite limits for the more important factors which determine the quality and condition of any given lot of corn. The limits for color, moisture content, damaged kernels, foreign material, and cracked corn were definitely fixed in so far as it was possible to do so.

In the fixing of grades for wheat, oats and the other grains, it is probable that the same general

certificate of No. 2. It will be sufficient to call your attention to our analyses of samples from one lot of more than 70,000 bushels certificated as No. 2 hard winter. This lot of wheat showed a moisture content ranging from 13.7 per cent to 16.5 per cent with an average of 15.1 per cent, under a published rule which provides that No. 2 hard winter wheat shall be dry. It is not surprising that complaints are coming in from grain exchanges and American consuls in European countries to the effect that wheat from the United States is arriving in a heated, musty, and damaged condition. Neither is it surprising that a considerable portion of the great surplus of Canada's most excellent crop has been commandeered for use in Europe during a period when they have no time to barter in grain that arrives in bad condition. Wheat with 15.1 per cent moisture is in no sense dry, and it is practically as certain to go out of condition before it can be discharged at a European port as anything can be. Neither is such wheat entitled to a grade of No. 2, although it might possibly be squeezed into a No. 4. With a definite limit of moisture for the different grades such elasticity would be impossible.

What the limits should be in standard grades I am not able to express, but based on the data now available, a maximum of 13 per cent is probably not far from correct for No. 2 winter wheat. Most of the corn grades cover a range in moisture content of two per cent, but with the small grains the range must be more restricted. Oats under normal conditions will carry less moisture than wheat. At present indications it does not appear that oats with a moisture content in excess of 12 per cent or at most 12.5 per cent should be permitted in a grade above No. 3 under the present classification, and that oats having a moisture content in excess of 14 per cent should rightfully be classified as sample.

FOREIGN MATERIAL

With respect to the amount of foreign material such as weed seeds, chaff, dirt, etc., standard grades should be more definite than under existing conditions. By way of illustration, take the grades for wheat. Aside from the "dockage" system applied in a few markets to the grading of spring wheat, most grade rules provide that the wheat shall be clean or reasonably clean. What these last two terms mean I have never been able to accurately determine. I have my own ideas as to what should be classed as clean wheat, but it would seem that they do not correspond to the ideas of others, if inspection certificates serve in any measure as a basis for comparison. Investigations have shown that grades of wheat, under rules specifying it "must be clean," show on actual analyses, weed seeds, chaff, dirt, etc., varying from a mere trace to three or four per cent. The terms "clean" or even "reasonably clean" must surely mean something more definite than that. Webster defines clean as being "free from dirt, filth, impurity, foreign or undesirable matter." In rules for grades clean must necessarily mean something different, for no commercial grain is absolutely free from foreign matter, and no reasonable person would so contend.

In many markets there is an unwritten rule that wheat with less than ½ per cent of foreign material shall be considered as clean. If this is a fair and reasonable interpretation, then it should be written into the rule so that all might know; it is just as important to the man who is growing it, the country elevator man who is shipping it, or the man who is buying it, as it is to the inspector who does the grading. Equally indefinite is the phrase "not clean enough for No. 2." Rules governing foreign material in standard grades to be acceptable must be more clearly defined. They should either clearly indicate in terms of per cent the quantity of such material permissible in any given grade, or they should be based on a dockage system, such as is now applied to spring wheat in some of the large markets. As I have publicly stated on previous occasions, the more I study the dockage system the better I like it. It affords an opportunity for more uniform grading in that it is not always easy to judge as to the quality of a given lot of grain carrying a considerable quantity of foreign



BARGE "ALPHA," LOADED WITH ALFALFA MEAL AT THE MUNICIPAL WHARF IN KANSAS CITY, WAITING FOR A TOW BOAT

Chicago, New York, St. Louis and New Orleans; that it be applied on poor crops as well as on good; that it be used in the same way from July 1 to June 30, and that it cover the export as well as the domestic trade. With grades a fluctuating proposition, varying in different markets, and even in the same market at different seasons and under different conditions, the producer has no means of knowing when he is receiving the grade or the price to which he is entitled. Neither is the country elevator operator, who should have a thorough knowledge of the commercial grades, in a position to buy grain on its merits. Under a fluctuating system of grading he is obliged to buy on the basis of average quality, leaving ample margin to fully protect himself against variability in grading at different points, and this margin must eventually come mainly from the producer, and especially from the producer of grain of high quality.

Strong efforts are now being put forth in the movement for the production of more grain of better quality. If a farmer is to grow grain of high grade it is essential that he know the grade requirements, which he cannot do unless they are something definite and staple. Under a uniform system of grading, with the grades clearly defined, there is every reason to believe that farmers will

plan will be followed, with such modifications as the particular kind of grain may require.

MOISTURE CONTENT

So much has been said at one time or another concerning the moisture content in grain that it would hardly seem necessary to discuss this factor to any extent. However, no discussion of standard grades would be complete if no mention were made of this, perhaps the most important factor, in that upon the degree of dryness, more than anything else, depends the keeping quality of grain in storage or during transit. This fact has been so strongly emphasized during the present season with a considerable percentage of our Winter wheat and more than half of our oats, badly damaged as a result of excessive moisture, that all must agree that no standard grades would be acceptable without a definite requirement as to moisture content. The terms dry, reasonably dry, damp, wet, etc., are inadequate. They leave too much room for a shifting of grade values. Grain that is dry to the seller is often damp or wet to the buyer. Perhaps never in our history has this been more strongly emphasized than with our present crop of wheat, and especially much of that which has been going for export. I shall not discuss the export situation in detail, but the matter is of such vast importance to our trade relations with foreign countries that duty demands that I present here a few facts with reference to some of our wheat that has been exported under a

*Address before the National Conference on Marketing and Farm Credits, Chicago, Ill., December 2, 1915.

material. Moreover, the producer or country shipper can determine such dockage in advance of sale or shipment if he cares to do so, and can likewise remove such dockage if he finds it profitable to install the necessary cleaning machinery for that purpose. Ordinarily, cleaning can be done more economically at the elevator than on the farm. In some sections, especially in parts of Indiana and Michigan, a very commendable practice prevails in the cleaning of wheat as delivered at the mill or country elevator—the screenings being returned to the farmer.

INSEPARABLE IMPURITIES

A strictly dockage system, however, is not fully applicable in all cases. Such impurities as corn cockle, garlic, kinghead, etc., that cannot be satisfactorily removed from wheat by means of the cleaning machinery in common use, must, under any system of grading, be given special consideration in that they seriously affect the milling value of the wheat even when present in small quantities. In addition to the assessed dockage there should be a lowering of grade or a discount in price to compensate the miller for the extra expense in putting such wheat into suitable condition for milling. Moreover, the removal of such impurities by special cleaning machinery is accompanied by a heavy loss of wheat. This can be more clearly expressed by referring to the analyses of a few representative samples of corn cockle screenings secured at country mills. The average of four lots of screenings showed 12.1 per cent corn cockle, 11.1 per cent of other weed seeds and grains and 76.8 per cent of wheat. In a bulletin now in press, Bulletin No. 328, the effects of some of the more troublesome impurities on the milling value of wheat are fully described.

MIXTURES OF DIFFERENT VARIETIES, CLASSES AND KINDS OF GRAIN

Closely allied with the so-called inseparable impurities are the mixtures of different varieties, classes, and kinds of grain. Rye often grows with wheat, sometimes as a volunteer, but more frequently as a result of impure seed, and occasionally rye is deliberately mixed with wheat, usually hard winter, for illegitimate profits. Millers all agree that rye in wheat injures the color of the flour. However, not all agree as to the quantity of rye that wheat will carry without showing such injury. Our investigations have shown that the presence of rye in as small quantities as three per cent injures both the color and the texture of the bread, and that as little as one per cent is noticeable on color. It would therefore appear from the data now available that the maximum percentage of rye permissible in grades of wheat should not exceed one per cent.

A somewhat similar case is the mixture of Durum wheat with the other hard spring wheats. Within the past year, samples from three different cargoes of wheat, certificated as No. 1 Durum, contained an average of 16.4 per cent of other spring wheats, and four per cent of weed seeds and other foreign material. It does not necessarily follow that the spring wheat was deliberately added even though the difference in price at that time would have made such a substitution highly profitable. In fact, our investigations have shown that a considerable percentage of Durum wheat is mixed with bluestem, velvet chaff, etc., when it comes from the field. During the past harvest, head counts in 110 fields of Durum wheat showed that 13.2 per cent of the heads were of spring wheats other than Durum. Less than eight per cent of the fields showed pure Durum and only 27 fields out of a total of 110 contained 95 per cent or better of Durum heads. But whatever these conditions, it requires a considerable stretch of the imagination to figure out on what grounds a grade of No. 1 Durum could be given to a lot of wheat which contained 16.4 per cent of other spring wheats, and four per cent of weed seeds and other foreign material under a rule reading "shall be * * * well cleaned and be composed of Durum * * * wheat." I am certain that under standards acceptable to the U. S. Department of Agriculture No. 1 Durum wheat will not be allowed to carry such percentages of other wheats and for-

eign material. I mention this more particularly at this time in the hopes of starting some movement for securing pure Durum wheat for seeding next spring. Should grades be established before the movement of another crop, it is evident that much of the wheat now sold as Durum would be classed as "mixed wheat."

DAMAGED GRAIN

Damaged grain offers perhaps the most serious difficulty in formulating acceptable standard grades. There are so many degrees and kinds of damage that an arbitrary line must be drawn as to what shall be classed as commercially sound and what shall be considered as damaged. Many forms of damage, however, are partially covered by the weight per measured bushel. But even this factor must be determined with considerable care and according to certain prescribed methods if the results are to be at all reliable. It is easy to make a difference in weight of one or two pounds depending on how the test kettle is filled.

I shall not undertake to discuss grade requirements for frosted, sprouted, immature, blighted, rust damage, etc., for these are factors dependent largely on weather conditions over which the farmer has no control. I wish to emphasize, however, the stinking smut which may be present in wheat as smut balls, or as a mass of smut spores adhering to the brush of the kernel. In extreme cases the somewhat oily spores are present in such countless millions as to cover the entire kernel. This can be better understood when it is considered that a single smut ball is estimated to contain three million spores. A few smut balls or spores impart a smutty odor to the wheat, and whenever this odor is distinct the wheat, in my opinion, should be classed as sample grade and discounted accordingly. It requires a special washing treatment to make smutty wheat suitable for milling, and many of the small mills do not have such facilities. There is another reason for taking somewhat drastic action against smutty wheat in that this stinking smut yields readily under proper seed treatment. There is every reason to believe that within five, or at most 10 years, stinking smut could be practically eradicated from the United States, if one of the treatments that have been recommended for so many years by the Federal Department of Agriculture and the various State Agricultural Colleges and Experiment Stations were universally applied with proper care.

WHEN WILL STANDARD GRADES FOR THE SMALL GRAINS BE FIXED?

With the corn grades now being applied to the second crop you are naturally interested to know when the Department contemplates the fixing of standards for the small grains. I regret that this is a question to which I cannot give you definite reply. As you are aware, our grain standardization investigations have not been limited wholly to the fixing of standards, although much of the work done has furnished data that will serve admirably as a sound basis for such standards. The investigations have covered the harvesting and storing of grain on the farm; the handling, storing and grading of grain at country elevators and in the primary markets; the deterioration of grain during transit in cars and in trans-Atlantic steamships; the milling value of different classes and grades of wheat; the quality and condition of Argentine corn imported into the United States—and various other problems covering every important phase of the handling, storing, grading and transportation of grain. Moreover, the mere fixing of grades and their adoption accomplishes but little in the absence of suitable authority to control their application. It is, therefore, only fair to state that personally I am strongly opposed to the fixing of standard grades for additional grains until after the enactment of such legislation that will provide authority to insure uniformity of application, because without such legislation uniformity is impossible.

As to what form such legislation should take, there is apparently an honest difference of opinion. Some prefer out-and-out Federal inspection, while others believe that Federal supervision will meet

every requirement. Personally I stand committed to Federal supervision, because I believe that it will afford every needed protection to the producers and consumers of grain, with the least possible disturbance of legitimate practices in the handling of our great crops of grain, and with a minimum expenditure of public money. Moreover, even with Federal inspection, it would be necessary to have a system of supervision, for without supervision it would be impossible to maintain uniformity of application.

While it is not my function to discuss proposed legislation, it might not be out of place to summarize briefly the essential points of the Grain Grades Bill, which, according to Congressman Ralph W. Moss, in a statement before the Grain Dealers' National Association at Peoria, will be reintroduced at the coming session of Congress. This bill provides the fixing of standard grades by the Secretary of Agriculture; the licensing of inspectors for the grading of grain entering interstate or foreign commerce, and the revocation of such license in case of failure to grade grain correctly in accordance with the rules and regulations laid down by the Secretary; an appeal to the Secretary of Agriculture in case of dispute as to the grade of any given lot of grain; and a general supervision of the inspection and grading of grain, with authority to publish the results of his findings. Should legislation along these or other lines, providing for a uniform and definite system of grading, be enacted at the coming session of Congress, I see no reason why standard grades should not be established soon thereafter. Such grades might not be complete in every respect, but the investigations would be continued with the view of making modifications in the grades from time to time as the best interests of the country might require.

TRADE COMMISSION EXTENDING EXPORT INQUIRY

The Federal Trade Commission during the past month sent out 30,000 letters of inquiry, followed up by a brief schedule, as a part of the investigation of conditions that affect American foreign trade. Congress has empowered the Commission to make an investigation of these conditions and to report the facts with such recommendations as it deems advisable.

The war in Europe has so affected the trade of the world that American enterprise has a peculiar opportunity to supply the wants of foreign markets and to secure a greatly enlarged share of their trade. The Commission, therefore, deems it to be its duty to complete with all possible dispatch an investigation which may assist Congress in determining what action may be required in the public interest for the promotion of American foreign trade.

By public hearings throughout the country and by other means the Commission has been gathering facts and information as a basis for its report to Congress. It now wishes to obtain information from a large number of men who were unable to appear at the hearings. For this purpose these letters and schedules were sent out.

A return postcard accompanying the letter is designed to give the Commission a broad yes or no referendum on the advisability of export combinations, and to put it in touch with those who are willing to assist the Commission by furnishing further facts and suggestions. To those who stated that they would co-operate with the Commission in furnishing facts, etc., the schedule of inquiries was sent, covering the topics on which the Commission desires information.

Through this letter of inquiry and schedule the Commission particularly desires to get the facts from many different points of view and from all sides of controverted questions. There are 20,000 names of manufacturers and producers including every important branch of American industrial enterprise and representing every shade of opinion in regard to the present problems of our foreign trade.

The list takes in big business and little business; companies that are old in exporting and firms that are new; interests that want combinations among American manufacturers for export trade and men who are opposed to such organizations; manufacturers of specialties and producers of staples; concerns whose foreign trade is limited to South America or Europe and those whose products are sold all over the globe.

The schedules were prepared after careful consideration of the facts developed thus far in the investigation. In drafting the inquiries the Commission has consulted noted economists and experts, leading business men in many important lines, and representatives of the Chamber of Commerce of the United States, the National Foreign Trade Council, and other organizations interested in the extension of export trade.

A COLORADO ELEVATOR

The Farmers' Union Co-operative Elevator & Supply Company of Longmont, Colo., was formed about a year ago by a number of the most substantial business men and farmers in and about the city. Therefore when they built their new elevator it was natural they should get the best that money could buy and the accompanying picture shows one of the

Advantages of a State Licensed Warehouse System

Illinois Warehouse Law a Model for Other States—Part of It the Basis of Interstate Commerce Enactment—Bonded Warehouse Protects Grain Owner and Gives Best Security for Loans

By J. C. F. MERRILL*
Secretary Chicago Board of Trade

THE question of Government-owned storage has been prominently before the public of late, especially that for the relief of the cotton states. It is commonly desired by those sections of our country financially unable to provide it for themselves.

When financial stress occurs and becomes general, as in case of panics, collateral ordinarily entirely acceptable to bankers is not infrequently refused, because such loans would but represent investment of their capital for the period covered by the obligation they secure.

I once heard President Forgan of our City National Bank say that he would rather loan money on wheat collateral if the wheat was hedged by a time contract, than loan it on Government bonds; that, in his experience, he had sold wheat

The present constitution of the state of Illinois was adopted by vote of the people in 1870. The XIII article of the constitution is as follows:

Warehouses. Sec. 1. All elevators or storehouses where grain or other property is stored for a compensation, whether the property stored be kept separate or not, are declared to be public warehouses.

Sec. 2. The owner, lessee, or manager of each and every public warehouse situated in any town or city of not less than 100,000 inhabitants, shall make weekly statements under oath, before some officer to be designated by law, and keep the same posted in some conspicuous place, in the office of such warehouse, and shall also file a copy for public examination in such place as shall be designated by law, which statement shall correctly set forth the amount and grade of each and every kind of grain in such warehouse, together with such other property as may be stored therein, and what warehouse receipts have been issued, and are, at the time of making such statement outstanding therefor; and shall, on the copy posted in the warehouse, note daily such changes as may be made in the quantity and grade of grain in such warehouse; and the different grades of grain shipped in separate lots shall not be mixed with inferior or superior grades without the consent of the owner or consignee thereof.

Sec. 3. The owners of property stored in any warehouse, or holder of a receipt for the same, shall always be at liberty to examine such property stored, and all the books and records of the warehouse in regard to such property.

Sec. 4. All railroad companies and other common carriers on railroads shall weigh or measure grain at points where it is shipped, and receipt for the full amount, and shall be responsible for the delivery of such amount to the owner or consignee thereof, at the place of destination.

Sec. 5. All railroad companies receiving and transporting grain in bulk or otherwise shall deliver the same to any consignee thereof, or any elevator, or public warehouse to which it may be consigned, provided such consignee or the elevator or public warehouse can be reached by any track owned, leased or used, or which can be used, by such railroad companies; and all railroad companies shall permit connections to be made with their tracks, so that any such consignee, and any public warehouse, coal bank or coal yard, may be reached by the cars on said railroad.

Sec. 6. It shall be the duty of the General Assembly to pass all necessary laws to prevent the issue of false and fraudulent warehouse receipts, and to give full effect to this Article of the Constitution, which shall be liberally construed so as to protect producers and shippers. And the enumeration of the remedies herein named shall not be construed to deny to the General Assembly the power to prescribe by law such other and further remedies as may be found expedient, or to deprive any person of existing common law remedies.

Sec. 7. The General Assembly shall pass laws for the inspection of grain, for the protection of producers, shippers and receivers of grain and produce.

The General Assembly in obedience to this mandate of the people in 1871 enacted—"An act to regulate public warehouses and the warehousing and inspection of grain, and to give effect to Article XIII of the constitution of this state"—in force July 1, 1871.

This law divides grain elevators into Classes A, B and C. Class A houses are limited to cities of not less than 100,000. Class B embraces all other houses in which grain is stored in bulk in which grain of different owners is mixed together. Public warehouses of Class C embrace all other places where property of any kind is stored for a consideration.

The law provides that public warehousemen must advertise their rates of storage during first week of January, and that such rates so advertised may not be increased during the year. Under the provisions of the law such storage must be licensed by the State Public Utilities Commission of Illinois. They must also file a bond with the Commission to be approved by it in a penal sum to be fixed by the Commission. The law forbids discrimination and provides for the mixing of



A MODERN TYPE OF FIREPROOF, CONCRETE COUNTRY GRAIN ELEVATOR AT LONGMONT, COLO.

best Burrell-built houses that has been erected this year.

The elevator is entirely of concrete with concrete office, warehouse and driveway. It will hold 40,000 bushels of grain in its bins and has dimensions of 32x34 feet on the ground with a height of 70 feet to the cupola. The total height is 90 feet. The warehouse is 32x60 feet.

Grain is received by wagons as well as by cars and the shipping facilities are most advantageous as the elevator is directly located on the Chicago, Burlington & Quincy Railroad and the Colorado & Southern. The farmers' grain after being dumped into the receiving sink can go either by a short leg to a Monitor Cleaner on the working floor or by one of the two legs to the cupola where it is weighed and distributed to the bins. Besides the cleaner there is a Wolf 3-pair High Feed Mill on the work floor and an automatic scale is located in the cupola. The grain is loaded to cars by spout through its own gravity. All the machinery except the special machines named, was furnished by the Weller Manufacturing Company of Chicago. The officers of the company owning the elevator are V. H. Hamilton, president, and Will Puegh, secretary and treasurer.

for foreign gold when he could not sell Government bonds.

Thus was made clear the fact that principal food necessities, susceptible of safe storage, are more liquid than the most stable of securities. The inexorable need of food gives it a market which stocks and bonds do not possess.

Before the question of Government owned and Government operated storage for soil products was even thought to be possible, the advantages of state controlled storage, operated by individuals, was recognized by a galaxy of men whose ability in vital and fundamental service in this and in other respects to Chicago in its infancy, has placed the city under everlasting obligations to them.

In 1823 Chicago had a population of 65 or 70. Twenty-five years later it had a Board of Trade, and 22 years still later, it had state controlled public elevators. Thus, not only were the people of Illinois benefited, but those of the entire Mississippi River and Missouri River valleys tributary to it likewise were given equal facilities at its great and growing market place—Chicago.

*Address before Conference on Marketing and Rural Credits, Chicago, Dec. 2.

grain of the same grade, unless a special bin is arranged for by the owner of the grain. The same law in obedience to the same mandate provides for a State Grain Inspection Department.

Section 14 of the law provides that it shall be the duty of the Governor to appoint, by and with the advice of the Senate, a chief inspector of grain for the state. The said chief inspector shall have the power to appoint, upon the approval of the Utilities Commission, such suitable persons in sufficient number to act as deputy inspectors as may be necessary to properly carry on the business of the department.

The law also provides for the appointment of a warehouse registrar for the purpose of registering receipts issued by public elevators and canceling them when presented for cancellation preparatory to withdrawal of the grain from store; also keeping a record of the same, thus officially showing the quantity in store.

Numerous minor yet important conditions are named in the law and in a supplemental Act in regard to warehouse receipts, in force July 1, 1907.

This law, enacted nearly 45 years ago and in force during all of this time, placed the state of Illinois far in the lead of every other state. It has been substantially copied in some respects by other states, but none of them have laws so far-reaching and complete. A portion of it, that part relating to common carriers, was the substance of the Interstate Commerce Act. When that law was enacted by Congress, this law had been in use more than 20 years and had passed the experimental stage. It was argued that what had proven good for the commonwealth of Illinois, would likewise be good for the nation.

Public storage under this Act has ranged in total capacity in the city of Chicago up to approximately 50,000,000 bushels. It is and from the first has been open to the public impartially and the proprietors under the law, as a matter of sound public policy, as construed by the Illinois Supreme Court, may not store their own grain in mixture with that of the public. Its maximum efficiency was, when the farmers were less able financially than now to hold their grain. They then sold freely immediately it could be delivered. At that time, prior to a decade and a half ago, the 50,000,000 capacity was, at times, scarcely enough. Now, with twice the production in the territory tributary to this market, 14,000,000 answers the requirements reasonably well. This is in obedience to a prime order of nature, i. e., a movement along lines of least resistance.

At rates of storage in effect now and for some years past, the total yearly charge, should any grain remain in storage continuously for a year, amounts to 12½ cents per bushel. Twenty years ago, when rates were higher, it amounted to 18 cents per bushel. Against this, on the farm the storage charge is *nil*. Crib and other farm storage costs little, if the life of the storage be considered, and it is worth nothing while empty. Thus, the farmer has the advantage to the extent of this storage cost. Those to whom he sells in central markets can not escape the public elevator charge in holding surplus grain.

The advantages of a state licensed warehouse system to the great public of that section of our fertile Mississippi Valley tributary to Chicago have long been demonstrated. It has served a large and general purpose; it has enabled the public to store grain safely—in the care of a licensed and bonded custodian. It has facilitated the accumulating of round lots for lake shipments. It has provided means of doing this during months of closed lake transportation to gain the benefits of lower water rates. It has also served those who have desired to place their grain where it could be utilized as highly acceptable collateral to bank loans. As against Government owned storage it has saved the people from paternalism in Government, preserving individual initiative, thereby fostering the creative in men and likewise tending to exclude dependence, thus preserving self-respect. True helpfulness resides in helping others to help

themselves and not in paternalistic or gratuitous assistance.

State licensed elevators have retained the benefits of competition in fixing their charges, storage being a commodity. At the same time they have protected the public against the exactions of unfair rates besides possible loss of the property, through utilizing privately owned and operated storage.

THE RECENT RECONSTRUCTION AT ROCHELLE

On a line west from Chicago in northern Illinois are sections of the finest grain country in the United States, and that goes for the whole world. Rochelle, which is on the Burlington and the Northwestern Railroads, centers one of these garden spots, and P. R. Diederich's new elevator is designed to take care of a large share of the business that comes that way.

Mr. Diederich for many years operated a house in Rochelle. The new plant, which was built on



PLANT OF P. R. DIEDERICH, ROCHELLE, ILL.

the site of the old, he designed himself. His years of experience had taught him the important features of such a house, and the result is an elevator in construction and equipment fully meeting his requirements in giving the best of service to his patrons. This is necessary as there is sharp competition at Rochelle, but Mr. Diederich has found the way to meet it.

The house has a full concrete basement and engine room. Above the foundation is cribbed construction 2x8 for 18 feet and 2x6 for the balance of the way. The exterior of the elevator, feed room, dust room, grain door room and office are covered with corrugated galvanized iron. The building is 24x46 feet on the ground plan and 75 feet high to the top of the cupola. In the house are 12 bins, six bins from the ground to the plate, four bins over the driveway, and two bins over the work room, making a total capacity of over 50,000 bushels.

In the cupola are two signaling distributors, and a Barnard & Leas Corn Cleaner with a capacity of 1,000 bushels per hour. Other equipment consists of two dumps, two elevator legs, a gravity loader, and a man-lift. Power is furnished by a gasoline engine.

In addition to the elevator the plant has a number of coal sheds, and storage buildings, for Mr. Diederich handles coal, tile and feed besides the grain.

ARBITRATION DECISION

E. L. Wellman of Grand Rapids, Mich., made a claim against the E. E. Delp Grain Company of Philadelphia for \$627.50, which had been charged against him as loss on 15 cars of wheat, alleged to have been bought, but which were not delivered.

The dispute grew out of a series of telegrams between Mr. Wellman and A. J. Stites, who was acting as agent. An offer to sell was made by Mr. Wellman on Saturday, February 13. On Monday following, after the opening of the Exchange, Mr. Stites sold 15 cars No. 2. Red to the E. E. Delp Grain Company, but Mr. Wellman refused to confirm the sale. In its decision the Arbitration Committee of the Grain Dealers' National Association, held as follows:

"It is a well known custom that unless otherwise specified, offers of grain made after the closing hour of the Exchanges, cannot be considered good for acceptance or open for a longer period of time than when the Exchanges open the following morning and that any acceptances received by the seller after that hour are subject to confirmation or rejection at the pleasure of the seller, and because of this long established custom the committee believes that the plaintiff would have had the right to reject or to refuse to confirm any of the transactions referred to if the acceptances reached him after the opening hour of the Exchanges.

"The fact that plaintiff did fill several sales on which the acceptances were late in reaching him could not change or destroy the long established custom referred to above, nor would it give the broker or buyer the right to demand an acceptance on one late order, because other late orders had been accepted and filled, and while the acceptance of a late order by a seller without wiring a confirmation of same might lead to carelessness on a broker's or buyer's part, it would not destroy the seller's right to reject or to refuse to confirm some other order which was received late and not acceptable to him.

"If this Committee should rule in favor of defendants' contention relative to plaintiff's having changed his method of doing business and hold plaintiff responsible for the loss involved in the dispute, it would mean in effect, that unless a seller named a certain time for acceptance on each offer made that a broker or buyer would have the privilege of sending an acceptance to suit his own convenience and it would also mean that the Committee was ignoring a very old and important trade custom or rule.

"The evidence also shows that at 11:35 A. M. or eight minutes after Mr. Stites wired the sale of the 15 cars, that he received wire No. 6 from plaintiff instructing him not to sell any wheat, and at 12:11 P. M., or 44 minutes after the sale had been wired, he received wire No. 9 from plaintiff refusing to confirm the transaction and these two wires show that Mr. Stites had knowledge eight minutes after the trade was reported that it might not be satisfactory to the plaintiff and in 44 minutes after the trade was made he had plaintiff's refusal to confirm same. This information was surely communicated to the defendants.

"The important points in this dispute seem to be, 'Did Mr. Stites have any special authority from plaintiff for the selling of his grain, if not, for what length of time did the order contained in wire No. 3 remain good.'

"We do not find that the evidence shows any special authority on the part of Mr. Stites for the sale of plaintiff's grain and we believe that the most liberal construction that could be placed on plaintiff's wire No. 3 would be to limit the time for acceptance to be in plaintiff's hands by 9:30 A. M. Grand Rapids time, or 10:30 A. M. Philadelphia time, and inasmuch as the sale was not accomplished until 11:27 A. M., Philadelphia time, or 57 minutes after the markets had opened, we believe plaintiff cannot be held responsible for the loss claimed.

The committee ruled that the E. E. Delp Grain Company pay the amount at issue and costs.

Growing Wheat in Australia

Conditions of Australia Similar to Dry Farming Regions of this Country—Production Cost Low—Bulk vs. Sacked Grain—Machinery and Horses Efficient

By W. D. HORNADAY

WHEAT farming in Australia possesses many features that are not to be found in the United States or Canada. In the first place, the average annual rainfall is low in most of the wheat growing districts. Remarkable as it may seem, fairly good crops of wheat are grown there in regions where the average annual rainfall is less than 10 inches. Of the 2,750,000 square miles of area that comprise the island-continent about 1,000,000

voted to wheat only once in every two or three years. It is fallowed during the one or two intervening years and then planted again in wheat. Professor William Lowrie, Director of Agriculture of South Australia, evolved this plan of growing the grain several years ago while he was president of the Roseworthy Agricultural College, situated 30 miles north of Adelaide. After making a study of the rainfall and soil he decided that large areas of

more toward increasing the wheat production of the country than any one man or set of men. His method of dry farming and fertilizing is finding recognition among the farmers of all the districts where the rainfall is low.

There are a number of Government wheat breeding and testing stations in Australia. Splendid good has been accomplished by the introductions of new varieties of the grain and in conducting experiments as to the best methods of preparing the soil, planting and harvesting. At the Cowra experiment station in New South Wales are several hundred plots of wheat that have been crossed to nearly the final selection. At the different Government agricultural stations in that state, wheat is being developed with a view of resisting rust and increasing its ability to withstand drought. The fact that the stripping process is quite generally followed has led to the widespread adoption of a variety known as "Federation" which has a coarse, tough straw. Other common varieties are known as the "Comeback," "Marshall's No. 3," "Bobs," "Bunyip," "Purple Straw" and "Improved Steinwedel." At the Dookie Agricultural College, in the state of Victoria, approximately 5,000 different pure and crossbred varieties of wheat are being experimented with. The quantity of grain ordinarily used for seeding is about three-quarters of a bushel per acre, drilled in. In some cases, where conditions are different from the general run, as much as 100 pounds per acre are used for seeding.

The rabbit pest has necessitated the building of vermin-proof fences in many parts of the wheat growing districts. The cost of a woven-wire fence is about \$150 per mile. The governments of the different states are spending enormous sums of money for the eradication of rabbits. In the state of Victoria the pest is pretty well under control. The Vermin Department of that state is charged with the enforcement of stringent laws against farmers permitting rabbits to infest their land. If a land owner does not comply with an order from the Vermin Department to destroy the little animals, the work is done for him by the Government and the cost of same must be borne by the owner.

In connection with the wheat growing industry of Australia one of the things that attracted my attention the most was the strange type of implements and machinery that are used for plowing the land and harvesting the crop. The fact that much of the country where the industry is carried on is cut-over



FILLED BAGS OF GRAIN IN SOUTH AUSTRALIA

square miles have an annual rainfall of less than 10 inches; another 1,000,000 square miles have less than 20 inches and the remainder—chiefly in the tropical state of Queensland, the Northern Territory and a part of the state of New South Wales—have more than 20 inches. The average rainfall of the Port Darwin District, in the Northern Territory, is 61 inches per annum. Even in those parts of the country where the average rainfall is heavy it often falls below normal, causing a drought that is most disastrous in its effects. The same is true also of the more southern and western parts of the Commonwealth where the average annual rainfall is low. It is these rainfall shortages, which sometimes cover a period of several years, that make wheat growing and the livestock industry more or less uncertain. If the season is good as to rainfall Australia's production of wheat for any one year may run up to more than 95,000,000 bushels, as it did in 1911, whereas if the drought prevails it may drop to less than 60,000,000 bushels as it did in 1914. The area now devoted to this grain is now about 7,500,000 acres. Of the states, New South Wales stands first in annual production, with South Australia, Tasmania and Queensland in the order named.

Another thing which the Australian wheat grower has to contend with is the generally poor soil. Notwithstanding this and other drawbacks, the average yield per acre of the country is 12.90 bushels as compared with an average of 13.70 bushels per acre for the United States. It is claimed by Government wheat growing experts of the Commonwealth that with the continued application of scientific methods of dry farming in the regions of low rainfall and the more general adoption of those approved principles, the average yield per acre of the country will be greatly increased during the next several years.

How best to conserve the moisture in the soil is a problem that is receiving widespread attention of the trained men of agricultural science and the farmers themselves in the different states. What is known as the Lowrie Method of wheat growing is coming into general favor, especially in South Australia. Under this plan the same land is de-

land that were at that time considered practically unsuited for the grain could be made to give large yields by applying certain methods of dry farming. He began his experiments by fallowing a field of the arid land in the fall, plowing it to a depth of about four inches. During the following spring and summer he gave the unplanted land shallow cultivation, keeping the surface well mulched. The seed was planted in this well prepared bed and it received the full benefit of a second winter's rains. To his gratification he brought up the yield from

seven bushels to 30 bushels per acre. Analysis made by Professor Lowrie also showed that much of the land of the country is deficient in phosphoric acid. To relieve this condition he gave the soil an annual dressing of 100 to 200 pounds of tricalcic phosphate of lime. This soil food added enormously to the wheat yield; the increase being as much as 15 bushels per acre in many cases. The cost of the fertilizer in Adelaide is about one dollar per one hundred pounds.

I was told that Professor Lowrie has perhaps done

land led to the invention of what is known as a "stump-jumping" plow. This automatic attachment is attached to breaking plows as well as to cultivators. When the instrument strikes a stump it doubles back and the plow jumps over the obstacle. The stumps of the felled trees are usually allowed to remain upon the land, and in order to harvest wheat upon fields of this character machines were devised that strip and thresh the grain in the field as they are pulled along by horses or tractor. The latest-improved harvester of this type not only strips the



WHEAT STRIPPING MACHINE AT WORK IN AUSTRALIA

grain from the standing straw but threshes and winnows it and places it in sacks, all ready for market. Attached to this reaper-thresher, as it is called, is a mower knife on the back of the comb which cuts the heads of the low-fallen wheat and delivers them into the threshing compartments of the machine. By this method none of the wheat is lost, it is claimed. It requires four to six horses to pull each machine. The cost of stripping, threshing and sacking the grain is about six cents per bushel. The services of only one man are required to operate it.

The cost of wheat farming in Australia is said to be considerably below that which prevails in the United States and Canada. In the former country one man usually cares for 250 to 300 acres. Most of the farms are of large areas. The industry is conducted largely on the principle that a good crop is not to be expected every year but when large yields are obtained they do much more than make up for the poor ones.

The Commonwealth Government of Australia has

Troubles of the Grain Inspector in Grading Grain

History of Grading in Minnesota—State Grading Described—Inspectors Impartial—Abuses and Faulty Practices of the Trade—What Farmers Might Do to Raise Grades

By H. E. EMERSON*

Chief Grain Inspector of Minnesota

IN Minnesota up to the year 1877 there was little, if any, local or terminal grading of grain. The grading practice was of an individual and arbitrary character,—the different grain buyers graded according to their individual judgments. There was no uniform effort upon the part of any association representing line elevator companies, millers or buyers, looking toward the establishment of anything that might be called a set of grading rules, which would define the characteristics of the various grades of different grains.

Up to this time this system of marketing and

and operated by the railroad companies, later by line elevator companies and today most of them are operated by independent, farmers co-operative elevator companies and line elevator companies, while a few of them are operated by mills throughout the state.

The development of large terminal markets and the demand for an impartial grading and weighing system was responsible for the enactment of a grain and warehouse law in our state which became effective June 1, 1885. This placed the regulation of the grain business and the duty of establishing grades for grain, and required supervision over the weighing of grain at the terminals with and by the Railroad and Warehouse Commission.

The legislature of 1885, which passed the original act referred to, appropriated the sum of \$1,000 from the revenue funds of the state for the use of the State Grain Inspection and Weighing Departments, and gave to the Railroad and Warehouse Commission authority to establish fees for the inspection and weighing of grain. This original appropriation is the only sum ever paid into the state treasury for the use of that service from moneys derived by direct taxation. The department has been maintained continually for 30 years from the fees produced by the service itself.

MINNESOTA GRADE RULES

The Railroad and Warehouse Commission established the Minnesota grade rules and the rules for the operation of the Inspection and Weighing Departments. These rules have not been materially changed, except to add to them to provide rules to govern in the grading of the different new varieties of grains that have been produced as the result of experiments conducted by the Federal and the State Agricultural Departments and colleges. The essentials, so far as grading of wheat is concerned, remain the same now as then, but it is interesting to note that by the development of the country, attended with the clearing away of its forests and the breaking of its prairies, that while for the crop year ending August 31, 1815, 38 per cent of the spring wheat inspected "on arrival" graded No. 1 hard and 35 per cent graded No. 1 Northern, compared with the crop year ending August 31, 1915, only .8 per cent of the spring wheat graded No. 1 hard and 22.6 per cent graded No. 1 Northern.

Under our state law the local grain warehouseman must purchase his grain in conformity with the Minnesota grain rules, which have been legally established for the guidance of the State Grain Inspection Department in determining its official grades at the terminal markets. These grade rules, formerly established by the Minnesota Railroad and Warehouse Commission each year, have since 1899 been established by an independent tribunal, known as the Joint Boards of Grain Appeals, consisting of six members, all appointed by the Governor.

The grades are required by law to be established annually at a joint session of the two grain appeal boards of three members each and cannot be changed during the crop year, except by and with the consent of five of the six members attending a meeting which has been called and advertised for that purpose.

GRAIN DEPARTMENT ON CIVIL SERVICE BASIS

Since January, 1901, our Railroad and Warehouse Commission has placed its grain department on a practical civil service basis, although we have in our state no civil service law which has required such an action. Appointments to grain inspectorships are made by the chief grain inspector, with the consent of the Railroad and Warehouse Commission, from the class of employers already in the service in minor positions and then only after com-



WHEAT READY TO BE HAULED TO SHIPPING STATION, NEW SOUTH WALES

been conducting an investigation of the grain elevator system as it is found in the United States with the view of introducing that method of handling wheat in that country. At present the grain is stored and shipped in bags. Often losses are met with by the piles of bags of grain being rained upon. During the harvest season enormous stacks of these well filled bags are to be seen at the different shipping stations.

In connection with wheat growing and farm work generally in Australia it was interesting to observe that practically all of the horses are of the draft type. It is seldom that one sees a small horse pulling a load of any kind in that country. The burdens of the big Clydesdale and Shire horses are apparently never heavy. It is not uncommon to see teams of eight to 16 of these large animals hauling a load of five to ten tons of wheat or other product. The horses are splendidly treated and it is seldom that an animal in poor condition is seen.

SPAIN has 39,536,703 acres in cereal crops this year. The total agricultural products of the country, including olive and grapes, are valued at \$940,800,000.

THE Canadian wheat production has run somewhat above the Government estimate. The provincial estimate gives 336,258,000 bushels, of which 228,132,000 will be available for or have already been exported.

grading grain worked fairly well, because it was largely a matter of agreement between the producer and the buyer, and the volume of business was extremely small and was confined very largely to wheat.

The raising of wheat 40 years ago was confined largely to the area tributary to the Mississippi River, and the primary wheat markets along this river at that time were among the most important in the world. Among them were Winona, Wabasha, Lake City, Red Wing and Hastings, all in the State of Minnesota. Both mills and elevators were located at all of these points. Good crops and good prices gave this territory advertising that resulted in increase of population and expansion of the wheat raising area.

MAKING MINNEAPOLIS THE MILLING CENTER

The result was the development of the milling industry at Minneapolis, largely developed and still largely maintained by the use of the magnificent water power at St. Anthony Falls. The ultimate outcome of this method of marketing and buying of grain was the formation of a Millers' Association, the organization of the Minneapolis Chamber of Commerce, the establishment of grading rules by the Millers' Association, the ultimate reaching out into the country of better wagon roads, and the construction of steam railroads.

This developed the local warehouse on the different lines of railroad. These houses were owned

*Address before Conference on Marketing and Farm Credits, Chicago, December 2.

petitive examinations which actually test the practical knowledge of the applicant in the actual grading of grain. Many of the inspectors on our force have been in the service for more than 20 years.

The position of the chief grain inspector is in no sense political. His appointment is made by three members of the Railroad and Warehouse Commission who are elected by the people. It is true that he may be removed at will, but his selection by the Board is upon the basis of competency as an administrative officer and as an expert in the grading of grain.

The Minnesota State Grain Inspection Department is, therefore, not a political department and cannot be made a political football by changing administrations.

With this brief historical summary to establish in your minds the process of evolution of state grading in Minnesota, permit me to suggest that if the local warehouseman purchases grain on the basis of terminal grades, the grades in our state ought to be uniform at all points, or reasonably so, as near as human judgment might determine. It likewise ought to be said that No. 1 Northern wheat so graded in Duluth ought to be accepted at points down the lake and elsewhere as No. 1 Northern. As an illustration—a cargo going out from Duluth under a grade of No. 1 Northern should be and, as a matter of fact is, deliverable in Chicago on that same grade, likewise at Buffalo or at New York.

Minnesota grades have the distinction of being acceptable in Europe, and it has only been when grain delivered upon our state grain inspection certificates has been mixed with other grain in transit that objection is raised by our export friends. It should be remembered, of course, that the authority of our grade rules reaches only to the confines of the state and we cannot regulate the grades beyond our own borders.

DECEPTION IN LOADING

I presume as long as grain is to be handled in commerce and graded, that some shippers will attempt deception in the loading of their cars. We have found, as all other departments have, a certain percentage of cars received at our terminals that have been plugged, some apparently with an intent to deceive inspectors, and others accidentally so loaded. We have found cases of deliberate and willful intention of setting up cars where the plug indicated the use of a bag or barrel to receive the inferior grain, the receptacle being removed after the loading has been completed. This kind of a set-up would leave a pocket of inferior grain surrounded by the main body of grain.

We have, in cases of the discovery of such plugs, graded the entire car upon the basis of the grade given to the poorest found in the car. This practice has been changed so as to require such cars, when found, to be graded No Grade, CC, sent to an elevator to be cleaned or handled, and if sustained on reinspection and appeal, the department assesses an arbitrary fee of \$5 per car.

The physical condition of grain that is marketed and comes to our terminals for state inspection presents about the only trouble of a state inspector in grading grain under present state standards. He is not concerned with the producer or the purchaser. He attempts, in our state, to stand as an unbiased arbiter between the parties interested in the complex game of producing, marketing and consumption of grain. As a matter of fact, we are not confronted with any real serious troubles in the placing of our grades on grain.

The various classifications of the Minnesota grade rules, which largely follow the standard grades that are fairly uniform in most of the grain producing states, made so through the efforts of the National Grain Dealers' Association and the Association of Chief Grain Inspectors, require that grades be provided for a large number of varieties of so-called spring wheats, different varieties of oats and barley, flaxseed and corn. In our markets our grain inspectors must have a knowledge of the characteristics of Scotch fife, bluestem, marquis, Minnesota 169, Minnesota 188, Durum, Preston, humpback, climax, velvet chaff and other so-called varieties of spring wheat.

If the inspector exercises his judgment in the placing of his grades on these different varieties he has done all that can be reasonably expected of him in the grading of wheat for commercial use, and while the judgment of men may vary, as long as grain is to be graded in commerce in this way, if mistakes occur a recourse should be had, and in our state is had, to the reviewing body for a reinspection. Again, should the parties interested in a particular sample, car or cargo, be still dissatisfied, in our state they have a final court of review called the Board of Grain Appeals. To this Board must be submitted all cases of disputes and the decisions rendered in such cases by the Board of Grain Appeals are final and conclusive upon all parties.

INSPECTORS TRY TO PLEASE ALL

Grain inspectors are never so well pleased as when the quality of the crop is good. They are but human and naturally desire to give satisfaction and to receive approval for their official acts, rather than not to give satisfaction and have their acts disapproved. Criticism is the same the world over, whether it be directed against a public official as to his acts in grading grain, or against professional men in other lines of work.

Under our Minnesota grade rules today we find this to be true. A sample may be submitted to an inspector who is a good judge of grain,—his verdict may be that the sample submitted will grade No. 1 Northern. He may figure that it is a very poor No. 1 Northern, or, as we say, the very lower edge of No. 1 Northern. The sample may in turn be submitted to another grain inspector, equally as good a judge of grain as the first, and his decision may be that the sample will grade No. 2 Northern. He might say to you that it was an extremely good No. 2 Northern and that there was a question in his mind as to whether or not it should be graded No. 1 Northern. In other words, it is the very upper edge of the No. 2 Northern grade.

It is not sufficient, in my opinion, for grades to be made that a state department, a Federal department or an association grading grain at a large terminal market might be able to follow in the application of those rules. If the grades so established are too numerous for the individual classification and if the refinement is carried to the extent that the grades are not practical in the country, it would mean that the producer who parts with approximately 95 per cent of his crop to the local warehouseman is going to be the loser. When he has made a delivery to the local warehouseman in the country he usually has sold his grain outright.

Grain inspectors, if they are competent judges of grain, can follow any set of grade rules—primarily, because they are trained judges of grain; secondarily, because they have every grading facility and tool and appliance of the profession at hand to assist them in the application of the rule. It necessarily follows that the buyer of grain at the local warehouse, handicapped as he is by the lack of tools and appliances, handicapped further by the fact that he is rushed usually from daylight until long after dark in taking in his grain, cannot grade either as closely or as successfully as a terminal grain inspector.

EQUIPMENT USED IN DETERMINING GRADES

In 1909 the Minnesota legislature permitted this department to assist in the equipment of a grain testing and milling laboratory at the State College of Agriculture, which is connected with our State University. This laboratory was made available to the State Grain Inspection Department, the Board of Grain Appeals and the Railroad and Warehouse Commission and was used in milling and baking tests and in chemical analysis of various samples of the different grains. Since that time the Railroad and Warehouse Commission has provided a most fully equipped grain testing laboratory and milling department, which is used by both the inspection departments and the appeal boards. Milling and baking tests of grain are carried on by our state chemist daily and the work is carried on in conjunction with and as assistance to our grain inspectors.

There is one feature of the marketing of grain that has not been touched upon very extensively,

and that is the threshing operation. In my opinion it would be far better for the thresher to place sieves in his separator in place of blanks and to deliver to the producer his clean grain separate from the various foul seeds, so as to make a complete separation of grains in separate lots, to be sacked and delivered to the man for whom he was threshing.

In the ordinary marketing of grain today in our country the farmer who raises grain with a pound or two dockage of the ordinary kind, which might consist of wild buckwheat, pigeon grass, fine weed seeds or other foreign seeds and substances, is not only paying freight on that dockage, but he is giving the dockage away in addition. If this were collected for him at the time his grain was threshed and delivered to him separately, it would give him something of a commercial value for the feeding of his stock and he would be ahead by marketing clean grain and would save the freight on the dockage. On the other hand, it is true that very often dockage may be heavy on a particular carload of grain and the dockage may consist of mustard seed, flaxseed or other seed that is valuable when it is present in an amount which would cover the cost of cleaning and leave a profit, so that in such cases the dockage is an asset and not a liability, because purchasers are many times found for such cars who will pay a premium therefor over the regular straight price for a given car of the same grade without such an excessive dockage.

Whether a market grades down for the presence of foul seeds and admixtures of other grain, foreign to the main body, or whether a market docks for such substances, is not material. The result to the producer is the same. He generally is the loser by permitting the shipment of his grain in a dirty condition.

Marketing methods in vogue in our state do not materially vary with the location. A large proportion of grain is threshed from the shock and is marketed just as soon after it is threshed as possible. In many cases the grain is hauled direct from the threshing machine to the local warehouse. It is nearly all sacked at the machine and taken to market in sacks.

DEALERS AND FARMERS BOTH AT FAULT

If the local market at which this grain is presented for sale is a competitive point and competition is unusually keen, we have found it true that grain buyers will frequently disregard our terminal grade rules and will over-grade or under-dock in order not to lose a customer's business. Many times we have found a local warehouseman buying grain on the basis of No. 1 Northern when he knew full well that the grain could not possibly grade more than No. 2 Northern at the terminal, but this is a condition which is not general.

The producer, after he has cleared his farm and has continued to raise wheat on the same land without the proper fertilization or rotation of crops, finds himself with wheat that is inferior, when it is compared with the first crops that he has taken, yet he may figure, and we oftentimes find that he does believe, that the local buyer should give him a grade higher than that to which he actually is entitled. He does not comprehend that the deterioration of his grain results from his practice of farming, and the falling off in the percentages of the higher grades, to which I have made reference, indicates changes in soil conditions, a weakening of the land and the using of poorer seed. This invariably results in the deterioration of the grain raised, yet at the same time the producer has not, seemingly, until very recently, recognized the fact that this is curable only by persistent rotation of crops and persistent fertilization.

To conclude, the regulatory methods of grain inspection to be beneficial to the producer, to whom we must all look for our living, for he really is the man who creates for us the substances upon which we must thrive, must be of a character that will permit the ordinary average country grain buyer to apply the rules prescribed and must be made with the idea of the protection of the producer rather than for the benefit of elevator or milling companies.



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We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, DECEMBER 15, 1915.

 Official Paper of the Grain Dealers' National Association
 and of the Illinois Grain Dealers' Association.

WILL ENGLAND AFFORD RELIEF?

SINCE the war broke out Government control of railroads and munitions plants has been established in England. About 900 engineering establishments are now under direct control of the Government. Control of the merchant marine seems to be the next step, and it is under serious consideration by the authorities. The rates have been excessive for ocean carriage, and are largely responsible for the marked rise in living cost. With the German merchant marine idle the British shipping interests control a large percentage of the ocean trade. These interests are powerful and would probably resent any interference with their fat profits, but England, nor any of the warring countries, is not in a position to favor any interest when the welfare of the nation is at stake. A Government-owned British merchant marine is a possibility which may be realized at an early date.

NEW RULING ON SULPHURED OATS

ON November 29, Secretary D. F. Houston of the Department of Agriculture issued a new ruling on sulphured oats which modifies former rulings and advises dealers of specific conditions under which such oats may be marketed. The full text of the ruling may be found on another page.

The principal feature of the pronouncement is that the former uncertainty is relieved and the trade can go ahead with definite knowledge of what may or may not be done, without fear of prosecution under the Food and Drugs Act. One per cent of added moisture is allowed: All treated oats must be described in all documents and labels as "bleached with sulphur

dioxid," "sulphur bleached," or "sulphured," the terms "purified," etc., not being sufficient: concealed damage is not allowed. In regard to mixtures, five per cent of other grain is allowable if the mixture occurred naturally in the harvest, but no artificial mixing is permitted unless statement to that effect is contained in the documents and labels.

UNTYING THE BAG

SHIPPERS for many years have been attempting to get a ruling on a reasonable transit time between Mississippi River points and the Atlantic Coast. The limits of this "reasonable" period seemed to vary to meet the requirements of the roads, so that it has been next to impossible to get recognition for a claim for losses caused by delay in transportation. According to the *New York Journal of Commerce* the Trunk Line Association roads have filed with the Interstate Commerce Commission a schedule of demurrage charges for grain cars delayed in the congested eastern district, when such cars are not billed with shipping directions for export. In this schedule the statement is made, over the signature of the president of the Association, that careful computation has shown that 18 days from Mississippi River points and 20 days from beyond is a reasonable allowance for transit time and that anything beyond this should be applied to demurrage. It rather looks as if the railroads, to gain a temporary end, had made an admission that will be of permanent value to the trade, and, furthermore, it is almost certain that the grain trade would refrain from objection to the proposed schedule if it would result in future reciprocal demurrage. The Commission, however, denied the railroads' petition.

FEED BUSINESS FOR THE ELEVATOR

A GREAT many grain elevators throughout the country carry profitable side lines, coal, lumber, cement, salt, implements, post and fencing, tile, and feed. There are, on the other hand, far too many who depend for their year's profits entirely on the grain handled during the season, for several months of the year the elevator remaining idle and eating into the year's earnings each day. Of the side lines carried, one of the most profitable is prepared feed. The margin of profit on the amount sold is as much as for most other side lines, and, in addition, every ton of mixed feed which the farmer buys releases a corresponding quantity of raw grain which will enter the channels of trade through the elevator. By selling feed, then, the elevator wins, coming and going.

In addition to the gains made in these feed and grain transactions the elevator manager is serving a broader purpose than appears on the surface. It can be demonstrated that prepared feed is economical from the farmers' standpoint. The actual value of various feeds, measured by their coefficient of digestibility and compared to natural grain, has not been established, but the prepared feeds made by the big manufacturers of those products have been built up after careful experimentation on stock of vari-

ous kinds, and by test comparison the proper balance has been arrived at. These feeds are sold under analytical guarantee and the farmer can know just what he is buying, and, moreover, can be informed as to the best feed for his particular purpose, arrived at after the most searching tests. Successful feeding means profitable stock raising and an increase in that industry, a consummation to be desired in every farming community, spells neighborhood prosperity.

It needs no demonstration to show that the combination of purchase and sale of feed as well as of grain would add directly to the profits of an elevator. There are few stations where dairy stock feeding is not engaged in more or less. Prejudice of many farmers, and sometimes the teaching of agricultural so-called experts, would have to be overcome. But that is true of the introduction of anything new in a community, from soap to automobiles. A live elevator man is in a position and has the ability to convince his patrons, and a new and profitable business awaits him without his going out of his way or materially increasing his investment.

DANGER SPOTS

THE accident hazard in grain elevators is much less than in most manufacturing establishments with their many and complicated machines. Elevator machinery is comparatively simple and the necessary equipment small, and for that very reason there seems to be a growing carelessness in many plants. Hazards which could easily be eliminated are allowed to exist, dangerous places remain unprotected, and every month sees record of accidents which might easily be prevented.

This is particularly true in the small one and two-man houses. In the larger elevators which employ many men the insurance inspectors are more apt to require the elimination of danger spots. Often a simple protective device over a shaft or around an opening will be of far more value than a large insurance premium. No one wants to be hurt even if he is paid for the privilege. Look to the hazards and wipe them out.

CONTRACTS

ABOUT 50 per cent of the cases called upon for decision by arbitration committees of grain dealers are based upon uncertainty as to what does or does not make a contract. Most of the other cases are the result of uncertainty in terms. A certain number of cases arise from factors which can hardly be anticipated, but these are few and far between. Most disagreements can be avoided and are, in the vast majority of cases, evidence that one or other party in the transaction does not know the trade rules under which he is doing business. The trade rules of all associations contain the specific items which should be included in a contract, and if every item is made definite there could be few cases of dispute.

Considering the extent of trading in grain and the thousands of articles of trade that are made each day, the number of cases which actually go to arbitration is very small. This is a direct

result of organization and shows in what high regard the grain trade holds fairness, business sense and square dealing. The essence of this is represented by the contract, which should, in every transaction, receive the discriminating scrutiny of both parties.

CHARACTERISTICS OF SUCCESS

AN industrial journal recently contained an article on success, and the elements which made for it were named in order: liberality, modesty, foresight, self reliance, ambition. Success in the article was treated as a practical, concrete thing represented by money in the bank, and not as an idealistic firstclass-passage-through-the-pearly-gates. It related to cash and not to futures.

How do these characteristics hit the successful grain dealer? Liberality—we heard a dealer say recently that he always gave a farmer the benefit of the doubt. Most dealers do the same, but where grain is handled at a loss “liberality” becomes plain foolishness. “Modesty” is the gentle art of meeting success without a swelled head. It does not mean covering up your light with a bushel, nor having no opinion of your own and the courage to stick to it. In these perilous times many grain dealers declare that “there ain’t no such animal as ‘foresight.’” It is not to be confused with guesswork. “Self reliance” is as necessary this year as a grain cleaner, and “ambition”—well a man wouldn’t be in business for himself if he didn’t have it.

THE GRAIN EMBARGO

THE grain embargo at Eastern ports seems to have no immediate prospect of ending. The shortage of Eastern tonnage is responsible and the railroads cannot, with justice, be blamed. At the present time grain exporters are laboring under the hardship of a vicious circle. The railroads will not forward cars unless ocean space has been engaged; shippers do not dare to engage space because of the uncertainty of shipments reaching their destination on time. And there you are.

WHAT IS IT ALL ABOUT?

THE recent conference on Marketing and Farm Credits held at Chicago was called for the purpose of bettering the condition of the farmers. Many stirring addresses were made and the pitiable condition of the oppressed and exploited ruralist was touchingly demonstrated. Many suggestions were made for his relief, co-operation and the application of the German Landschaft being among the most prominent. The desperate condition of the farmer is further shown in the Statistical Abstract of the United States for 1914. The Government survey shows that the value of farm lands in this country is only \$28,475,674,169; farm buildings, implements, livestock, etc., are valued at \$12,515,774,921, so that the poor farmers are only possessed of some 41 billion dollars’ worth of property. The value of the farm products this year is estimated at something over \$10,000,000,000, on the farm, a gross profit of about 25 per cent on the investment.

The co-operating plan is being tried out with

success except where it duplicates service already efficient. Co-operation was the keynote of the conference and is undoubtedly only beginning its power and usefulness. This does not mean necessarily the individual groups of farmers’ co-operative societies, for some of these are co-operative and many are not, but it does mean the larger co-operation of all the forces in raising and marketing farm products, including banks, railroads, elevators, warehouses and markets.

The Landschaft in operation in this country would provide a liquid operating fund of about 15 billion dollars.

THE MIDNIGHT ALARM

THERE is no more impressive spectacle than a great fire at night. It contains all the elements that stir mankind to the depths; awe, pity, wonder, impotence, are all excited: Awe for the destructive power displayed; pity for the poor sufferers; wonder at its beauty and majesty; and the impotence of the onlooker to help or control. The first three will never cease to be present, but the last is rapidly disappearing. In its place we feel disgust and rage that the thing should be at all. We are indeed impotent when the fire is once under way, but most fires can be prevented and too often a destructive conflagration is the result of pure carelessness, or criminal negligence.

Fire prevention days have become established features in several states. Carrying out the intent of such a day has great educational value, and to our shame be it said that elevator operators need it as much as any one. Some of them will even have to join the kindergarten class. Among these will be the men who allow piles of corn husks and cobs, shavings and straw, to remain around the building exposed to sparks from passing trains. Then there are the first graders who have learned to take care of the corn husks, but who have heaps of old lumber and junk around the plant; who have a pile of greasy waste in the engine room; who run their separators without a dust collector, and their elevators without an air exhaust at the boot; whose buildings are not protected with lightning rods; and who lock up at night without examining every journal and elevator head for a dangerous hot box. There are operators for every class, from the nursing bottle stage (those who carry no insurance) to the post-graduate whose plant is a model of cleanliness and safety. In what class do you belong?

THE SEED PROBLEM

IN many sections the seed problem for next year is going to be a serious one. On the one hand growers have been urged for years to make use of home grown seed. On the other hand much of the home grown seed from this year’s crop is valueless and the farmer will be under the necessity of going far, in some instances, for fertile seed, or else getting his grain by methods or at prices which seem unreasonable. The germination percentage of the water soaked wheat and oats is so low as to make the seed worthless. In these cases dry seed will have to be shipped in to a community or else the remnant of last year’s crop, where there is a

remnant, used. In any case, full germination tests should be used. The frost will get most of the seed corn except in favored regions. Early selection of mature ears in the field is the only hope for home grown seed, and expert advisers are quoted as saying that it is worth \$5 a bushel to a man to have the privilege of selecting seed ears in a neighbor’s forward field if his own corn was liable not to ripen. Whether good seed corn will be on a \$5 basis generally is another question.

The elevator could perform a valuable service by testing the germination of the grain as it comes to the house, and warning its patrons where germination fails. This, of course, is the work of the farmers, but many of them will not do it, and the elevator may save itself a decrease in business next year, and save the improvident farmer much money by doing it for him. Unsought service never yet failed to pay for itself. It sometimes is responsible for the greatest asset of a house at a competitive station.

THE CITY OWNERSHIP IDEA

THE notable advance which New Orleans is making in city-owned public utilities (or rather state-owned and city-controlled) for the storage of cotton and grain, has inspired many people of Mobile to believe that a city elevator there would be no less profitable than is predicted for the New Orleans house. Whether it would prove to be so or not is a question which can only be answered by the shipping companies. Practically the entire grain business of the Gulf ports is in export, with such little coast trade as local marketing conditions make possible. For a great many years New Orleans has been a port of call for foreign vessels, and the additional grain tonnage will be cared for by established lines. On the other hand, Mobile has not been so favored. Its territory is limited compared to that of New Orleans with the whole Mississippi Valley to draw upon, and what tonnage it had to offer was restricted to local industries. Tramp steamers could easily take care of this so that the regular ocean freighters did not regularly make the port.

It now remains for Mobile exporters to show the freight line operators that the increase in grain production in the South and an export elevator at Mobile will make it worth their while to make it a regular port of call. Otherwise Alabama and Mississippi grain will be diverted to New Orleans where more tonnage is available. The question of private vs. public ownership does not enter the primary question, it is only concerned with the available export business of the port.

Among all the horrors of battle and siege, it is pleasant to read the report of the “Emergency Committee for the Assistance of Germans, Austrians and Hungarians in Distress,” which is an English body of men and women who see in the citizens of enemy countries who happen to be in England, not enemies, but only human beings in distress. Similar committees are at work in France and Germany, sowing the seed for new friendships when the war is over.

EDITORIAL MENTION

The Season's Greetings.

May Santa Claus fill your stocking with 1916 prosperity.

The market can't seem to get enough of choice hay.

Chicago Board of Trade seats are selling at \$3,500. This takes them out of the war bride class.

England, says Broomhall, doesn't need any more American wheat. Somebody over there seems to need it.

Putting the Sunday lid on New England, N. D., elevators is no more than might be expected of a blue-stocking town.

Hessian fly talk is heard from the Southwest. Some flies must have been away on a vacation during the heavy rains last spring.

Texas alfalfa is being shipped to Europe in considerable quantities. It is not stated whether it is to be used for horses, for man, or for ammunition.

The Armour Grain Company's estimate of milling wheat is 348,000,000 bushels. This is above previous records and yet the announcement broke the market.

Under the bushel tax system Minneapolis elevators paid to the state last year, ending March 1, \$282,701, which represents a tax on 253,006,853 bushels of grain.

The Chicago Board of Trade paid the salaries of the state grain inspectors from July 1 until the special session of the legislature was called the latter part of November.

The Illinois Public Utilities Commission refused to allow the change in wheat grades which would permit the delivery of velvet chaff with dockage as a contract grade.

The Minneapolis farmer who sold 1,000 bushels of 1914 corn for seed at \$1 per bushel the other day showed pretty well what the Northern seed corn problem is to be.

The report for 1914 of the Board of Railway Commissioners of Iowa will make grain shippers wish that this commission could regulate the railroads of the entire country.

The Government estimate of 75,000,000 of corn in Minnesota, worth \$45,000,000, is being derided by the stock feeders of the state, who cannot see enough sound corn to feed the chickens, to say nothing of the hogs and cattle.

The two proposed changes in the by-laws of the Chicago Board of Trade were lost by a large majority vote. The changes contemplated making the charge for private wire service to outside points \$10 per month instead of \$2; and requiring commission houses and brokers to produce their books for inspection at any

time. The first would put a heavy burden on the larger houses and the second might lead to very objectionable practices.

After Congress gets through with the "preparedness" program, the Grain Grades Act and the Warehouse Bill will have consideration. Both of them are up for early discussion.

The Department of Agriculture has sent out a notice that green bugs have made their appearance in the Southwest. Plowing and rolling is recommended wherever they appear.

Buffalo has already handled over 160,000,000 bushels of grain and expects the total to pass the 200 mark before the end of the season. Montreal isn't getting all the lake commerce.

Australia and New Zealand are becoming heavy buyers of alfalfa seed in our Western markets. The routes of trade in many lines are shifting. Will the changes be permanent?

During the first 10 months of this year the United States exported \$679,000,000 worth of foodstuffs, which more than doubles the amount exported during the same period last year.

The Government's final estimates on crops will be issued at 1 p. m. on December 15, and on winter wheat acreage on December 17. Both reports will be interesting reading for the speculators.

The rail shipments from the Pacific Coast to the Eastern Seaboard are hardly likely to become a habit with grain dealers, although several of such shipments have been found profitable.

A good leader is he who chooses able assistance. In his appointments and reappointments to the committees of the National Association, President Metcalf has shown himself a leader par excellence.

Exports from New York during November totaled \$180,000,000. The greater part of this was represented by foodstuffs and explosives. What a pitiful combination! Life and death shaking dice with the devil.

California recently shipped 3,200,000 pounds of beans to Europe. If Western beans go ahead at this rate and the damage by anthracnose to Eastern beans is as great as is reported. Boston will have to change its diet.

St. Paul chose a bad year for holding a corn show, from the Northern growers' standpoint. Prick a Minnesota corn kernel this year and it will squirt like a garden hose. The opening of the show has been postponed to December 15.

A so-called co-operative elevator manager in Minnesota wrote to his local paper asking if dividends on the patronage pro rata basis above six per cent on the stock would be advisable as compared to dividends on the capital stock alone. This is one of many farmers' elevators that is making money out of its name. "Co-operation" is getting to have a great pulling

power among farmers, and some crook will make a fortune one of these days by selling "co-operative gold bricks." They would go like hot cakes.

Before the embargo went into effect at New York over 40,000 freight cars were waiting to be unloaded at that port. War munitions were given first consideration in unloading and grain was a poor second. General freight also ran.

Farmers in the Northwest, after filling their granaries, barns, sheds, tool houses and attics, have moved into the kitchen and filled the parlor and spare bedroom with grain. Who would have ever expected Dakota to be so profligate?

It takes a lawyer, a traffic expert, and an international peace commissioner to fill out correctly the new form of declaration required by the Government on export bills of lading. In this manner the authorities aid the business man.

Willard Zellar of Iowa raised 141 bushels of corn on an acre of ground at a cost of \$13.73. At Iowa corn prices, and particularly corn seed prices, this will make a neat profit for Mr. Zellar, the champion. Careful seed selection did it.

Receipts of wheat at Chicago are breaking all records. In one day last week they were 3,300,000 bushels. During the first six months of the crop movement more wheat has been received than during any other 12 months, two years excepted.

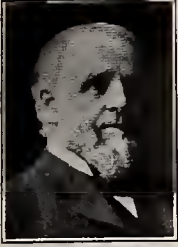
It is inconvenient but encouraging to read of the freight car shortage. When the railroads aren't losing money on idle equipment they are being knocked for not having equipment enough. A grain man isn't the only person with troubles.

Argentine methods have nothing on North Dakota this year. So greatly is the production in excess of storage capacity that in a number of places grain is being dumped on the ground around elevators at country stations. Bad practice, but what can they do about it?

The ocean transport situation is now about on a par with last year. Embargoes have been declared against export grain at all the Atlantic ports. This may encourage the Government into believing that its ship purchase scheme is ripe. It is not only ripe, it is rotten.

Commissioner John J. Dillon, of the New York State Department of Foods and Markets, has been auctioning 10 cars of hay each week on the New York market. The embargo on hay has shut off his supplies, which only proves that the rain is sent upon the just and the unjust.

Para, Brazil, opens its exposition on January 1, celebrating the three hundredth anniversary of the founding of the city. A corn show is to have prominent place in the exhibit and American growers are asked to contribute samples of U. S. corn. Much of our corn would be hard boiled by the time it got to tropical Para.

E. W. BAILEY
Chicago.

NEWS OF THE TERMINAL MARKETS

JOHN WICKENHISER
Toledo.

MEMBERSHIPS AT GOOD PRICE

Memberships on the Chicago Board of Trade are selling around \$3,500. The demand has been fairly good for some time past with few seats offered.

ERIE CANAL SHIPMENTS

The Erie Canal closed November 30. Shipments of grain through the canal for the season amounted to 8,176,494 bushels, as compared with 9,369,112 bushels last year.

NEW YORK WHEAT EXPORTS

The exports of wheat from New York amounted to 13,600,000 bushels during November, mostly Canadian wheat and 78,000,000 bushels during the eleven months ending with November.

ELECTION AT OMAHA

The annual election on the Omaha Grain Exchange was held recently and resulted as follows: John B. Swearingen, president; Barton Millard, first vice-president; J. A. Linderholm, second vice-president; F. H. Brown, treasurer; Frank Manchester, secretary.

GRAIN EXCHANGE IN NEW HOME

The Nashville Grain Exchange of Nashville, Tenn., will soon be housed in new quarters. The Commercial Club of Nashville, has raised \$50,000 to apply on leasing a six-story building which will be for the use of the commercial organizations of Nashville as well as the Exchange.

GOETHAM CITY NEWS

L. W. Forbell & Co. of New York City say in letter of December 13: "New business for export has been upon a much smaller scale and without sustaining effect. Local dealers are again showing a preference for oats in their natural state as against purified oats. The latter, except for fancy qualities, are particularly slow of sale."

AMENDMENTS ARE DEFEATED

Two proposed amendments to the rules of the Chicago Board of Trade were recently defeated after a very spirited contest. One amendment gave the directors of the Board the power to demand commission houses and brokers, members of the Board, to produce their books and permit an inspection of these at any time in order to see if the rules were being observed. It was chiefly objected to as it cast a reflection upon the entire membership because of a few possible wrongdoers.

The second amendment provided for the raising of prices of quotations to all branch offices outside of Chicago of private wire firms from \$2 to \$10 per month.

EXPORTERS LIKE LOW PRICES

C. A. King & Co. of Toledo, Ohio, say in market letter December 13:

"Exporters are generally bearish. They did not like the recent bulge. We talked to nearly all the large exporters in New York. Foreigners appear to want our spring wheat and some winter. Two red hard at the Gulf is depressed because quality is not as desirable as last year and Germany is not buying. Exporters think Italy has secured enough until Argentine crop will be available. They prefer that. Argentine and Australia are each harvesting nearly a hundred millions surplus. Australia shipped a little new today. Ocean freights there are extremely

high. Will England attempt to regulate them? They can in war. Exports from our Atlantic ports continue large, mostly on old business. Large part is Canadian bonded wheat. There is sufficient grain now enroute to the seaboard to make exports large all January. Congestion there is partly due to the lack of modern grain storage. Foreigners continue dictators. They are disposed to buy wheat and flour on the breaks."

FRANK S. COWGILL

It is not often so important a transfer takes place from one leading market to another as that which occurred recently when Frank S. Cowgill, president of the Trans-Mississippi Grain Company



FRANK S. COWGILL

of Omaha, Neb., also president of the Omaha Grain Exchange, accepted the vice-presidency of the Bartlett-Frazier Company of Chicago to take effect January 1, 1916. Mr. Cowgill has been associated with the grain business of Omaha for the past 17 years and has been a leading factor in its growth to the important place among grain exchanges which it now occupies. He was twice president of the Omaha Exchange and has been the head of the Trans-Mississippi Grain Company since its organization. He will be welcomed in Chicago by the entire grain trade among the leaders of which he has been more or less closely associated for very many years.

ARGENTINE AND AUSTRALIA HANDICAPPED

Argentine and Australia are harvesting wheat, but cannot ship freely.

Boats are scarce and freights high—75 cents a bushel to Europe. Bulls say that the surplus in these countries might just as well not exist, so far as Europe's immediate needs are concerned, that for the next two or three months North America must supply the foreign demand. The Dardanelles are as "tight" as ever and will, no doubt, continue that way until the end of the war. Russia must have a lot of wheat from the last two crops, but should the war end and the Dardanelles be opened, the exporting of it would be slow work on account of the conditions of

transportation facilities in Russia.—J. F. Zahm & Co., Toledo, Market Letter December 11.

CHICAGO CONDITIONS

Harris, Winthrop & Co. of Chicago say of corn December 11: "Rough weather is expected to delay marketing and husking and increase feeding. Exporters have been buying a little May corn here today also. Reports from Iowa, north of the Chicago & Northwestern road, are worse than heretofore. Stations throughout this section are already buying or making arrangements to buy corn in more southern sections. Shipping demand for cash corn is poor and cash corn has hardly kept pace with strength shown in futures."

COARSE GRAINS ON HEALTHY BASIS

James E. Bennett & Co. of Chicago report in market letter of December 11: "Heavy clearances of wheat and reports that local cash interests were good buyers at Minneapolis of wheat to come to Chicago this month were the principal bullish influences. Investments made on the soft spots should prove very profitable.

"Fairly good cash demand for corn with offerings very light. With favorable weather the movement is expected to increase.

"Country offerings of oats only moderate with cash demand fairly good. The movement should increase shortly but demand should be sufficient to take care of the offerings. Oats appear to be on a fairly healthy basis."

MARKET CONDITIONS

The wheat trade has been much exercised over the heavy damage after harvest, and as the winter wheat regions have been showing exhaustion, prices have been rising rapidly. On our crop estimate of 748,997,000 bushels of milling wheat, there is but 125,000,000 theoretical export surplus. Up to last Saturday we have exported 122,165,000 bushels of wheat since July 1. Last year the exports were 60,000,000 over the theoretic surplus, but there is no general reserves this year, and the market will shortly be confronted with a domestic shortage. Many of the mills in the winter wheat region have been closed. Others are operating with spring wheat.

Commandeering of Canadian wheat caught exporters long in that grain, and short hedges in our market. In extricating themselves from their unforeseen predicament they helped to make the big advance last week.

The neutral countries will need 150,000,000 bushels of wheat in the next eight months. Argentine and the United States must furnish this, and in the shortage of supplies high prices will limit the demand and curtail domestic consumption. The effect of the smaller winter wheat acreage is another powerful price maker. We can see only high prices on this crop.

The corn situation is the worst in our history. It is difficult to formulate a correct estimate. As an illustration, the Agricultural Bureau last month reported an aggregate crop of 519,173,000 bushels in the states of Minnesota, Wisconsin, Iowa and the two Dakotas. In the supplementary report the amount fit to be husked was one-third of the total or 170,000,000 bushels. In our reports we find the feeding value of these states to aggregate 168,000,000 bushels. In other words our investigation coincides with the Government's in these states and may be expected to be correct in the other states. The

big West—the cattle and hog feeding sections have a feeding value crop of 1,143,000,000 versus 1,469,277,000 last year, when the crop was short in half of the states. This section of the country has but two-thirds of its usual corn crop. The cotton states have large crops, but lack marketing facilities. It can not get much advantage in helping out the Central West, and its cotton crop being short, the excess of feedstuffs is not very large. We look for prices to reach and remain at last year's level.

The oats market is feeling the effect of a short corn crop. The large surplus states are those in which the corn has been reduced, and the need of home feeding will keep selling pressure off the market. Export trade is heavy, 27,000,000 bushels having been sent out since August 1. The market will follow the corn prices.—Clement, Curtis & Co., Chicago. In December market letter.

ARGENTINE CROP NEWS THE BIG FACTOR

December 10 to 25 each year Argentina news rises to supreme importance. She harvests Barletta—a common red wheat used all over the globe, similar to the Turkey Red of the Southwest. She seeds June 1 to August 20 and cuts 85 per cent of her wheat in December. The Argentine 1915 wheat acreage is set at 16,300,000 acres—just about the average of past 3 years and 700,000 below the record acreage of 1912. Her wheat crop is practically made and from all reports I estimate the surplus at 100 to 110 millions. No serious damage reports have appeared to date.

While the Argentine surplus, if large, may finally prove burdensome to the 1915-16 world situation, her final estimates now due are bound to be a prime influence on wheat fluctuation for the December 10 to January 25 period. Her corn and oats promise is reported large—again suggesting that her general grain weather has been successful. Should her final wheat surplus estimates rise to 120 or 130 millions—they will be a market influence.

The Argentina and Australian total wheat surpluses are probably around 170 to 185 millions versus 85 millions last year—when Australia ran into one of her worst wheat failures. The wheat from both countries may be terribly late coming to market, but it would "overhang" the market. For the first half of the 1915-16 crop period to January 1 North America will evidently export 230,000,000 wheat and flour against 224,000,000 last year. U. S. surpluses next July will likely be unimportant but meantime we require news as to England's vessel action and we cannot secure it too quickly. Will England make a special "vessel effort" to rush the new Australian and Argentina wheat crops to her shores? That is the question.—E. W. Wagner & Co., Chicago, Letter of December 13.

CHANGES IN MEMBERSHIP

Baltimore.—Membership in the Chamber of Commerce has been granted to the following: E. Russell Tolman, Wm. C. Mott, Carlos Falk, Edw. M. Fallon and Robt. A. Welsh. The memberships of A. P. Cole, Frank M. Cline, S. H. Woodland and A. F. Dresel have been transferred. Reported by Secretary Jas. B. Hessong.

Chicago.—New members on the Board of Trade are: Franklin M. Crosby, Edwin L. Dwyer, Edgar B. Calm, John C. Maxwell, Chas. J. Winter, Lawrence E. Rice, C. B. Fox and Elmer Martin. Hugh H. Paterson, C. E. Remer, Albert Zei, Edw. G. Dunn, John R. Conrad, Claude B. Barbee, H. T. Byford and Wm. S. Dugan have transferred their memberships. Reported by Secretary J. C. F. Merrill.

Duluth.—A. L. Goodman has been admitted to the Board of Trade while the membership of A. D. Goodman has been withdrawn. Reported by Secretary Chas. F. McDonald.

Kansas City.—Membership was granted to W. H. Marshall to the Board of Trade on a transfer from Mason Gregg, deceased. Reported by Secretary E. D. Bigelow.

Milwaukee.—Chas. A. Zeman and Alfred A. Hopkins were granted memberships in the Chamber of Commerce. The membership of the estate of R. A. Ritchie, deceased, has been transferred. Reported by Secretary H. A. Plumb.

Peoria.—New members admitted to the Board of

Trade are: Edward C. Leisy, president of the Leisy Brewing Company, Arthur Lehman, Secretary and Treasurer of Jefferson Operating Company, W. S. McClure, grain and commission merchant, H. G. Atwood, President American Milling Company, J. W. McDowell, Manager real estate dept. Title & Trust Company, James W. Gordon, grain clerk, all of Peoria and J. C. Aydelott, grain merchant of Pekin, Ill. Reported by Secretary John R. Lofgren.

Richmond.—J. Lee Koiner of the Koiner Flour Mills was recently elected to membership in the Grain Exchange. Reported by Secretary Y. E. Booker.

TERMINAL NOTES

Harris, Winthrop & Co. of Chicago, Ill., are now being represented at Sterling, Ill., by Maxwell & Quinleven.

The Jordan Grain & Provision Company of Columbus, S. C., has been incorporated to engage in the general commission business.

A. O. Slaughter & Co., of Chicago, Ill., have installed a private wire on 'Change at Baltimore, Md. W. E. Harris is their local representative.

The Wichita Cotton-Grain Exchange of Wichita Falls, Tex., has been incorporated by Frank Bell, D. P. Palley, D. W. Wiley and George W. Thurburn.

The Golden Grain Cereal Company has been organized at Nashville, Tenn., with a capital stock of \$150,000 to engage in the manufacture of cereal products.

The Officer-Smith Grain Company has been organized at Fort Worth, Tex., with a capital stock of \$10,000. The incorporators are F. A. Officer, C. Y. Smith and B. D. Darby.

H. G. Morgan of H. G. Morgan & Co. of Pittsburgh, Pa., who has been on a prolonged vacation on account of ill health, is again at his office very greatly improved in health.

E. F. Westbrook, recent vice-president of the Trans-Mississippi Grain Company of Omaha, Neb., is now president, taking the place of F. S. Cowgill, who removed to Chicago.

The Lonsdale Grain Company of Kansas City, Mo., has made arrangements to open a branch office at 23 Beaver Street, New York City, to take care of export grain business.

W. P. Bishop of E. P. Bacon & Co., and Clark Fagg of Fagg & Taylor, represented the Milwaukee Chamber of Commerce at the International Trade Conference at New York, December 6-8.

Paine, Webber & Co., stock and grain firm of Boston, Mass., with branches in leading cities, will open offices in the Corn Exchange National Bank Building, Chicago, Ill., on January 1.

Doorty-Ellsworth Company, Inc., of Buffalo, N. Y., have been obliged to secure larger quarters and have moved their offices from 610 Chamber of Commerce Building to rooms 829-830 same building.

The Peavey Duluth Terminal, an auxiliary of F. H. Peavey of Minneapolis, Minn., has filed notice of dissolution. On the surrender of its charter the Terminal company will close business at Duluth.

J. Murdock Dennis of the firm of Dennis & Co. of Baltimore, Md., and a director of the Baltimore Chamber of Commerce was married in November to Miss Louisa Haskins of Lexington, Va.

The grain brokerage firm of Day & Kirby of Princeton, Ill., has been dissolved. G. W. Kirby, the junior member, has retired and moved to Sterling. Mr. Day will continue business in Princeton.

George L. Bowman of the George L. Bowman Grain Company of Peoria, Ill., returned home recently from a five weeks' trip to California, where he visited, with his family, both the large exhibitions.

The grain and stock brokerage firm of Payne & Becker of St. Louis, Mo., made an assignment late in November. The firm had branch offices in Kansas City, Mo., and Mexico, Mo. The assets were given at \$160,000 in stock and bonds but a large per cent of these securities had been pledged as security for loans. Inability to make prompt

collections was stated as the cause of the assignment.

W. M. Bell & Co. of Milwaukee, Wis., received the first car of new corn to arrive at that market, on November 22. The car came from Iowa. The corn graded No. 6 mixed and tested 23 per cent moisture.

The H. M. Freeman Grain Company of Indianapolis, Ind., recently filed articles of incorporation with a capital stock of \$20,000. The incorporators are Harry M. Freeman, Burl F. Finch, Burke G. Slaymaker.

The A. J. Atkins Grain Company has been formed to carry on a general grain commission business at Minneapolis, Minn. Mr. Atkins was formerly manager of the Minneapolis office of the Hoover Grain Company of Duluth.

E. L. Southworth of E. L. Southworth & Co., of Toledo, Ohio, represented the Toledo Produce Exchange at the Twelfth Annual Convention of the National Rivers and Harbors Congress at Washington, D. C., December 8, 9, 10.

William N. Eckhardt of Pope & Eckhardt Company, Chicago, Ill., and Lowell Hoit of Lowell Hoit & Co. are considered as among available candidates for directors of the Chicago Board of Trade for 1916. The election takes place early in January.

Ashum, Slade & Co., grain commission firm on the Chicago Board of Trade, has been succeeded by Ashum, Slade & Basting. The new member of the firm is Louis O. Basting, who recently removed to Chicago from Minneapolis, Minn.

President Charles A. Krause of the Milwaukee Chamber of Commerce and James A. Mander will represent that body at the fourth annual meeting of the Chamber of Commerce of the United States which convenes at Washington, D. C., February 8-10.

Whitney Bros. of Superior, Wis., were awarded the contract for salvaging the wheat cargo of the steamship *A. P. Wright*, which sank after burning, in the Portage Ship Lake Canal recently. The Brooks Elevator Company of Minneapolis, Minn., purchased the grain.

The directors of the Peoria Board of Trade recently passed a rule that the membership fee be reduced to \$100 until January 1, 1916, and that not over 20 new members be admitted during its operation. The present membership of the Board is 115.

The announcement is made that E. L. Waggoner has resigned the office of vice-president of the Marshall Hall-Waggoner Grain Company of St. Louis, Mo., and disposed of his holdings in the concern. He will take a vacation, spending the winter months in Florida.

Joseph F. Jackson, who has been associated with Shearson-Hammill Company of Chicago for a number of years, has left that concern to take charge of the Chicago office of the Purity Oats Company of Keokuk and Davenport, Iowa, of which he is a stockholder and an official.

James A. Patten, member of the firm of Bartlett, Frazier Company of Chicago, recently added to his already large gifts, a tract of land valued at \$15,000, to the Evanston Hospital Association. It is understood that plans will be immediately made to build an addition to the hospital upon the tract.

T. J. Stofer, member of the Alder-Stofer Grain Company of Buffalo, N. Y., which failed recently, has gone into business on his own account. He has offices at 329 Chamber of Commerce. Mr. Stofer is well known to his many friends in the grain trade who will wish him success in his new venture.

The E. G. Hadden Company of Milwaukee, Wis., one of the prominent grain commission firms of that city, was obliged to suspend business late in November on account of branching out further than capital would warrant and being unable to realize on assets. The Cargill Grain Company of Minneapolis, Minn., took over the Chicago trades of the company amounting to about 700,000 bushels of grain and the remainder about 1,300,000 bushels were transferred. E. G. Hadden, the head of firm,

THE AMERICAN ELEVATOR AND GRAIN TRADE

has been a member of the Milwaukee Chamber of Commerce since 1887 and has very many friends. It is expected the affairs of the company will be straightened out very shortly and that business will be resumed.

It is stated that Thomas K. Martin, vice-president of the St. Louis Merchants Exchange and member of the grain firm of Graham & Martin Grain Company, is slated for the presidency next year. The regular annual caucus for nomination of officers and directors of the Exchange will be held December 29.

George Rose recently celebrated the thirtieth anniversary of his connection with the grain department of the Armour Grain Company of Chicago. His associates on the Board of Trade gave him quite a shower of flowers, presents and other testimonials of good will in order to appropriately commemorate the event.

Daggett & Turnbull have opened offices adjoining the Produce Exchange, New York City, and will carry on a general commission business in grain. Both members of the firm are well known in Eastern grain circles, having been connected with the grain business almost continuously for the past 20 years.

James Carruthers & Co. of Montreal, Que., recently loaded the steamer *W. Grand Morden* of the Canadian Steamship Lines with a cargo of 760,000 bushels of oats at Fort William for Port McNicoll. It was said to be the largest individual cargo of grain ever loaded on one steamer, either lake or ocean, constituting a world's record.

Joseph P. Griffin, head of the firm of J. P. Griffin & Co., Chicago, Ill., is spoken of very prominently as president of the Chicago Board of Trade to succeed Caleb H. Canby, if the latter does not become a candidate for re-election. Mr. Griffin is the present vice-president of the Board. The election is held early in January.

George E. Fuller, vice-president of the Bartlett-Frazier Company of Chicago, Ill., will retire from the firm on January 1 and be succeeded by Frank S. Cowgill, president of the Trans-Mississippi Grain Company of Omaha, Neb. Mr. Fuller has had charge of the cash oats business for the firm for many years. He announces his intention to retire from the grain business.

The directors of the Chicago Board of Trade recently exonerated Henry D. Hughes of the firm of Hughes & Dier of Philadelphia, Pa., who was suspended from the Philadelphia Stock Exchange on the charge that trades had been "bucketed" through the Hughes firm. Hughes alleged that the "bucketing" had been done by a clerk against orders.

RECEIPTS AND SHIPMENTS

Following are the receipts and shipments of grain, etc., at leading terminal markets in the United States, for the month of November, 1915:

BALTIMORE—Reported by Jas. B. Hessong, secretary of the Chamber of Commerce:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	5,098,497	1,045,800	5,620,178
Corn, bus.....	340,396	953,147	86,041
Oats, bus.....	2,667,523	5,343,130	3,011,848
Barley, bus.....	1,261,925	344,095	913,936
Rye, bus.....	1,560,418	1,520,147	801,178
Hay, tons.....	4,025	4,217	949
Flour, bbls.....	185,259	201,500	51,630

BUFFALO—Reported by Fred Pond, secretary of the Corn Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	42,129,579	23,965,636	.....
Corn, bus.....	108,000	1,889,322	.....
Oats, bus.....	2,331,411	511,850	.....
Barley, bus.....	4,123,509	4,221,999	.....
Rye, bus.....	836,750	937,498	.....
Flax seed, bus...	958,130	.....	.....
Flour, bbls.....	1,300,740	1,328,435	.....

CHICAGO—Reported by J. C. F. Merrill, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	6,616,000	14,102,000	2,158,000
Corn, bus.....	7,627,000	12,458,000	3,403,000
Oats, bus.....	16,337,000	11,844,000	12,850,000
Barley, bus.....	3,815,000	3,187,000	929,000
Rye, bus.....	981,000	354,000	659,000
Timothy seed, lbs.	4,039,000	2,650,000	3,796,000
Clover seed, lbs..	1,953,000	1,136,000	1,506,000
Other gr. sd., lbs.	2,526,000	1,910,000	1,219,000
Flax seed, bus...	126,000	11,000	1,000
Broom corn, lbs..	4,504,000	3,207,000	2,757,000
Hay, tons.....	28,620	23,600	6,655
Flour, bbls.....	938,000	852,000	721,000

CINCINNATI—Reported by W. C. Culkins, superintendent of the Chamber of Commerce:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	1,070,307	246,874	784,817
Corn, bus.....	468,167	592,904	107,230
Oats, bus.....	1,055,071	366,377	946,221
Barley, bus.....	102,708	41,579	106
Rye, bus.....	87,578	26,994	36,588
Timothy seed, 100-lb. sacks...	4,526	1,658	2,568
Clover seed, 100-lb. sacks...	1,605	3,576	454
Other grass seed, 100-lb. sacks...	19,013	24,739	13,461
Flax seed, 100-lb. bags.....	18	16	33
Broom corn, lbs..	367,736	268,267	29,923
Hay, tons.....	11,976	10,588	8,409
Flour, bbls.....	57,106	105,413	104,826

DETROIT—Reported by M. S. Donovan, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	338,090	253,000	175,000
Corn, bus.....	314,060	291,000	146,000
Oats, bus.....	553,000	261,000	211,000
Barley, bus.....	.....	15,000	.....
Rye, bus.....	92,000	83,000	43,000
Flour, bbls.....	26,000	34,800	37,000

DULUTH—Reported by Chas. F. McDonald, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	26,555,675	15,876,203	23,655,462
Oats, bus.....	739,272	1,366,902	1,063,200
Barley, bus.....	4,183,039	3,303,864	4,430,900
Rye, bus.....	963,934	1,265,250	851,750
Flax seed, bus...	2,767,734	2,230,376	2,118,480

GALVESTON—Reported by R. T. Miles, chief inspector of the Cotton Exchange and Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, cars.....	2,500	4,068	866,271
Corn, cars.....	488	10	197,142

INDIANAPOLIS—Reported by Wm. H. Howard, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	292,000	115,000	133,000
Corn, bus.....	1,738,000	1,856,000	534,000
Oats, bus.....	906,000	269,000	362,000
Rye, bus.....	28,000	1,000	7,000
Hay, cars.....	200	178	.....

KANSAS CITY—Reported by E. D. Bigelow, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	10,981,900	10,777,050	4,742,550
Corn, bus.....	1,676,250	698,750	535,000
Oats, bus.....	525,300	748,000	161,500
Barley, bus.....	369,600	108,800	284,200
Rye, bus.....	81,400	29,700	72,600
Kafir seed, lbs..	367,400	311,300	168,000
Hay, tons.....	31,572	27,048	5,220
Flour, bbls.....	24,500	14,250	278,000

MILWAUKEE—Reported by H. A. Plumb, secretary of the Chamber of Commerce:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	1,346,000	1,495,050	632,928
Corn, bus.....	761,175	2,835,150	446,777
Oats, bus.....	3,855,100	2,069,100	4,391,527
Barley, bus.....	2,679,240	1,822,980	928,275
Rye, bus.....	866,860	610,630	779,401
Timothy sd., lbs.	1,080,000	473,750	57,300
Clover seed, lbs..	1,163,140	1,714,012	208,305
Feed, tons.....	43,700	29,260	44,904
Flax seed, bus...	47,190	151,351	.....
Malt, bus.....	135,000	143,220	644,784
Hay, tons.....	2,990	12,374	108
Flour, bbls.....	534,130	358,000	690,272

MINNEAPOLIS—Reported by H. W. Moore, statistician of the Chamber of Commerce:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	24,491,710	12,041,630	9,734,350
Corn, bus.....	313,570	1,904,880	206,410
Oats, bus.....	6,841,370	2,351,660	6,003,760
Barley, bus.....	5,556,570	3,652,930	5,346,500
Rye, bus.....	1,433,880	805,790	1,100,570
Flax seed, bus...	1,505,640	1,246,820	312,720
Hay, tons.....	5,334	4,310	1,033
Flour, bbls.....	103,018	70,627	2,256,572

NEW ORLEANS—Reported by W. L. Richeson, chief grain inspector and weighmaster of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	1,280,516
Corn, bus.....	497,574
Oats, bus.....	23,110

NEW YORK CITY—Reported by H. Heinzer, statistician of the Produce Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	18,726,360	.....	13,618,271
Corn, bus.....	170,000	.....	43,622
Oats, bus.....	3,832,200	.....	1,442,346
Barley, bus.....	856,350	.....	505,504
Rye, bus.....	146,000	.....	201,553
Timothy sd., lbs.	.....	.....	86
Clover seed, lbs..	6,813	.....	1,986
Flax seed, bus...	1,247,000	.....	.....
Hay, bales.....	31,728	.....	1,354
Flour, bbls.....	1,262,971	.....	537,225

OMAHA—Reported by F. P. Manchester, secretary of the Omaha Grain Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	3,007,200	2,408,400	2,005,200
Corn, bus.....	849,600	1,165,200	587,400
Oats bus.....	1,322,600	1,334,500	1,104,000
Barley, bus.....	75,600	163,800	14,000
Rye, bus.....	355,300	151,800	262,000

PEORIA—Reported by John R. Lofgren, secretary of the Board of Trade:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	578,800	130,000	823,000
Corn, bus.....	2,783,100	1,152,000	1,224,700
Oats, bus.....	783,800	672,300	1,259,150
Barley, bus.....	294,600	252,800	101,525
Rye, bus.....	59,800	20,400	57,250
Mill feed, tons...	5,915	4,680	18,726
Seeds, lbs.....	390,000	240,000	30,000
Broom corn, lbs.	285,000	180,000	150,000
Hay, tons.....	3,830	3,580	720
Flour, bbls.....	177,900	184,200	193,496

PHILADELPHIA—Reported by A. B. Clemmer, secretary of the Commercial Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	6,322,644	2,547,403	5,666,833
Corn, bus.....	159,298	190,883	.....
Oats, bus.....	1,242,897	1,149,762	480,019
Barley, bus.....	236,688	150,490	242,280
Rye, bus.....	326,000	95,000	218,694
Timothy sd., bgs.	1,910	.....	.....
Clover seed bgs.	1,873	420	.....
Flax seed, bus...	.....	149,900	.....
Hay, tons.....	8,426	7,060	.....
Flour, bbls.....	284,052	286,835	93,176

ST. LOUIS—Reported by Eugene Smith, secretary of the Merchants' Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	5,802,285	4,255,107	3,958,700
Corn, bus.....	1,147,930	1,036,845	310,460
Oats, bus.....	1,830,900	2,017,900	1,385,410
Barley, bus.....	300,400	421,600	22,490
Rye, bus.....	118,450	44,000	102,050
Hay, tons.....	19,940	20,555	6,655
Flour, bbls.....	455,500	311,800	513,290

TOLEDO—Reported by Archibald Gassaway, secretary of the Produce Exchange:

Receipts		Shipments	
Articles.	1915.	1914.	1915.
Wheat, bus.....	1,717,000	636,000	853,800
Corn, bus.....	272,400	493,000	18,200
Oats, bus.....	638,800	310,700	368,000
Barley, bus.....	1,000	4,000	.....
Rye, bus.....	13,000	20,200	9,800
Timothy sd., bgs.	4,107	2,784	532
Clover seed, bgs.	7,310	7,650	3,309
Alsike, bgs.....	758	513	578

DEVELOPMENT IN THE PACIFIC NORTHWEST

Ten years ago the Pacific Northwest was handling grain in sacks exclusively. As the terminals became better equipped and the shippers enlightened as to comparative cost in handling, bulk grain is coming more and more in favor, and the final



PLANT OF THE JOHNSON ELEVATOR & WAREHOUSE COMPANY, CARLTON, ORE.

disappearance of the sack, except possibly for seed, seems certain.

A perfect example of this new tendency in grain handling is exemplified in the plant of the Johnson Elevator & Warehouse Company of Carlton, Ore. The house represents the transition stage, having an elevator for bulk grain, with modern dumps and elevators, and bins holding 30,000 bushels of grain. In addition to this there is a warehouse with a capacity of 20,000 bushels of sacked grain. Thus the old and the new are served, and most adequately served, too, for the equipment of both departments is of the latest design and of the rapid handling type. This new house replaces on the same site the warehouse which was burned last November. A. L. and S. U. Johnson, the owners, designed and built the new house which was finished on August 1. Its need in the community is apparent from the service it has rendered in only two months. Since August it has been operating at full capacity.

The plant is built on a full concrete foundation and has a roof of corrugated steel sheeting. The elevator proper is 30x36 feet on the ground plan and 75 feet high, while the warehouse adjoining is 60x65 feet and the seed store and office 20x36 feet. In all, the plant covers a ground area of 5,700 square feet under roof.

The equipment consists of two elevator lugs, Fairbanks-Morse Scales, complete grain and seed cleaning machinery, three electric motors with a total of 32 horsepower, a complete feed grinding outfit and a Sidney Manlift.

TRADE NOTES

The Modern Grinder Company is a new incorporation at Milwaukee, Wis., capitalized at \$10,000. The incorporators are E. Bockshe, T. and C. Cohn.

The Ellis Drier Company of Chicago, Ill., has received a contract for a 750 bushel per hour continuous feed drier from Mosuda, Kobe, Japan. It will be used for drying Manchurian corn and beans.

H. W. Caldwell & Son Company of Chicago, manufacturers of Caldwell's Helicoid Conveyors and general power and transmission lines, will open a sales and engineering office at Dallas, Texas, on January 1. It will be in charge of J. C. Van Arsdell.

A feature article of *Webster Method* for November is "Best Types of Bearings for Shafting." It is fully illustrated by types of Webster Ring-oiling Drop Hangers and Rigid Ring-Oiling Pillow Blocks and is a very plain and comprehensive treatment of the subject of theoretical frictional efficiency versus actual commercial economy.

The B. F. Gump Company of 431-437 South Clinton street, Chicago, Ill., have in catalog No. G-71 not only a fund of useful information for the grain elevator operator, but a complete list of specialties which they manufacture or act as jobber for the grain elevator. The company invites correspondence on any problem of grain handling or power transmission.

A guarantee without a limit is placed on its rotary warehouse and elevator separator by the Beall Improvements Company, Inc., of Decatur, Ill. This machine is the result of years of experience in the manufacture of grain elevator and milling machinery and the terms under which they are sold leaves the buyer in no doubt as to the quality and worth of his purchase.

William Ross & Co. of Chicago, Ill., have just issued a pamphlet calling attention to the line of goods the firm manufactures or handles for the grain trade. First among these is bags and burlaps and tying and sewing twine. Then follow such necessary articles as warehouse trucks, car movers, magnifying glasses for wheat, combination, truck and bag holders, etc. The company makes a specialty of second hand bags and does a very large business in this line.

Witherspoon-Englar Company of Chicago, was awarded the contract for building the 10,000,000 bushel Chicago & Northwestern Railway elevator at South Chicago, Ill., the plans for which were prepared by the John S. Metcalf Company, Ltd., of Chicago. The excavation work is all completed and the piles driven. The work will be pressed forward rapidly and it is expected to have this mammoth structure ready for operation and housing grain by January 1, 1917.

The Philip Smith Manufacturing Company of Sidney, Ohio, gives assurance that every purchaser of one of the Sidney line will find his machine reliable, dependable and economical. The company bases this statement on the past, during which time very many of the company's receiving separators, corn and grain cleaners, corn shellers, etc., have gone into grain elevator equipments in all parts of the country and their records fully bear out all that the manufacturers have claimed for them.

The Weller Manufacturing Company of Chicago, Ill., is leaving its North Avenue factory where it has been located very many years and shortly after December 15 will be established in its new plant at Cortland Street and Kostner Avenue on the Chicago, Milwaukee & St. Paul Railway and the Belt Line. The company purchased a site of 8 acres for new works a few years ago and the buildings now cover one large city block with ample room for expansion. The factory is especially arranged for convenience and light and the principal buildings

are the machine shop, bucket shop, conveyor shop, sheet metal shop and pattern shop.

The Bauer Bros. Company of Springfield, Ohio, has something worth while for the grain elevator operator in its advertisement in this issue. The idea as brought out relates to oil bills and profit, and to the saving brought about by grinding feed the "Scientific" way. The company announces that a postal card is all that is necessary to secure full information in what the "scientific" way consists or, more specifically, just what the "Scientific" Ball Bearing Attrition Mill will do under all conditions.

Last December the Weller Manufacturing Company of Chicago sent out to their patrons and friends a telephone index and memorandum pad bearing the daily dates for the year 1915. They are now sending out the date leaves, numbering 365 for 1916 which are inserted without trouble in the old holder. Each leaf, besides the date, contains an item on Weller-made machinery and its special advantages and usefulness in forming the equipment of the grain elevator, warehouse and mill.

The Hess Warming & Ventilating Company, of Chicago reports a continuation of the unusual demand which has marked the last six months for Hess Grain Driers, Out-of-Door Conditioners, and Moisture Testers. Among recent purchasers of Hess Driers are several railroads which have duplicated plants formerly installed by the Hess Company, thus indicating their adherence to the Hess system of drying. The Hess factory for weeks has been running at its full capacity on orders and apparently has had its full share of the prosperity which is passing around.

INFLUENCE OF TEMPERATURE UPON
CONCRETE

A treatise under the above title has been issued as Bulletin No. 81 of the Engineering Experiment Station of the University of Illinois. This bulletin presents a study of the data obtained from three series of tests of concrete cubes and cylinders. These specimens were stored under temperature conditions varying from 25° to 90° F., and were tested at various ages up to 28 days. Curves are presented to show the relation between strength and age for different temperature conditions, and also the relation between strength and temperature at different ages. The results are summarized in a set of curves which show the percentage strength of concrete at different ages and under different temperature conditions to that at an age of 28 days and under a normal temperature of 70° F.

The results of the tests made under freezing temperature conditions are of especial interest; showing the gradual and slow gain in strength under a storage temperature slightly below freezing, and the disintegrating effect of alternate thawing and freezing temperatures.

The bulletin will be of value to the contractor, engineer and others engaged or interested in construction work for information regarding the strength which may be expected of ordinary concrete under different age and temperature conditions and the time for the removal of the forms. Copies of the bulletin may be obtained gratis upon application to W. F. M. Goss, Director of the Engineering Experiment Station, University of Illinois, Urbana, Ill.

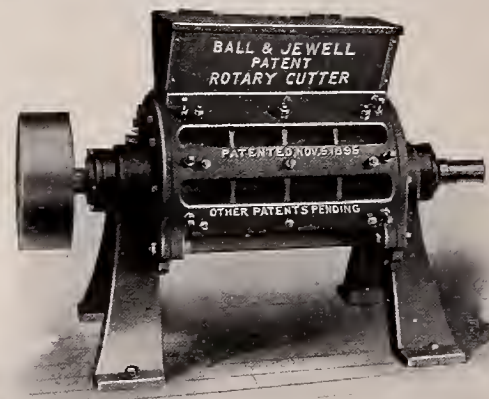
ON January 1, rates on grain and grain products from the United States to Cuba will be raised. The rates from U. S. ports to Havana will be advanced from 18 to 23 cents shipside and from 20½ to 25½ cents landed.

A NEW GRAIN CUTTER

Economy is the greatest factor of success in industrial life today—economy in production of goods and in operating the plant, in other words, giving customers the best at least cost. These are the things that have helped build all great business institutions and they should apply to every plant where feed is made. There was a time when it did not make much difference how much fine meal and low-grade stock was made when cracking corn for feed purposes, but it is an entirely different proposition nowadays.

The S. Howes Company, of Silver Creek, N. Y., builders of the "Jewel" Cereal Cutter, says that it has scores of customers who with that machine are daily cutting all sorts of grains for poultry feed, horse and cattle mixtures, with a loss not to exceed 6 per cent in low grade stock. The makers claim that the "Jewel" Cereal Cutter gives a wonderfully even product; that it does much better work and takes less power than any form of grinding mill on the market. By the way, the "Jewel" is not a grinder, it is a *cutter*, pure and simple.

The working parts consist of: A revolving cylinder with five steel knives bolted thereto; a stationary concave to which are fastened six steel knives; a removable, perforated screen. The knives are straight-blade and set at an angle thus insuring a



THE "JEWEL" CEREAL CUTTER

perfect shearing cut being given to the corn or other grain as it passes between the revolving and stationary sets of knives. After the grain has been reduced to the requisite size it passes out of the machine through the perforations in the screen bottom. Three screens, each with a different size of perforation, are furnished and these can be so easily removed that a change from one grade of fineness to another can be made in a few minutes.

The S. Howes Company asserts that anyone who has had any experience at all can realize why a greater volume of business and increased profits result from the use of *cut* instead of *ground* corn, wheat, oats and barley. Quality counts every time. A feed manufacturer, whether he is making horse and cattle feeds or poultry mixtures, cannot overlook the fact that it's the appearance of the goods nine times out of ten sells them. Taking that for granted, sound, high-grade materials only should be used in compounding feeds. In this respect he is on a par with competitors, so in order to make a larger profit, he must produce his goods at lower cost. It was for that express purpose that the "Jewel" Grain Cutter was placed on the market. This overcomes competition by cutting out the daily waste of time, power and material.

ONLY about 10,000,000 bushels of Russia's enormous grain supply will be released for export through Archangel this year. The total yield of wheat is estimated at 690,216,000 bushels; oats, 672,800,000 bushels; barley, 413,200,000 bushels. The quality of all winter grain is good, but the spring grain is below the average.

THE Port of Dairen exported 255,112 tons of beans last year. Nearly half of them went to Japan and over 65,000,000 tons to South China. This year the production will be much larger but the exports are expected to fall off materially, as all the mills at Dairen are working and will consume about 2,500 tons of beans daily.

NEWS LETTERS

CINCINNATI

K. C. GRAIN - - CORRESPONDENT

ONE of the most interesting and important matters which has been before the Cincinnati Grain and Hay Exchange for a long time is the proposal to make an increased charge for its use of the facilities offered by the trading floor of the Chamber of Commerce, including the ticker telegraph record of the Chicago market. Coupled with this proposal was one, emanating from interests in the Chamber, to the effect that none save members be permitted the privileges of the floor for trading purposes. This is understood to be approved by some of the hay and grain men, but many others are opposed to it, for the reason that it would eliminate from the floor many large buyers, such as distillers' and brewers' agents, who have been accustomed to doing their buying directly in the Exchange. It is also objected that the proposed rule would prevent clerks employed by members from handling business on the floor. On the whole, therefore, it seems that the majority of the members do not believe it practicable to attempt to convert the open and informal business of the local Exchange into anything resembling the activities of the Chicago grain market or the New York Stock Exchange, for the reason that local business is much more limited, and the object of the members is rather to increase business than to limit it. However, at the meeting of the Exchange held on November 18 at the Hotel Gibson, it was voted by a considerable majority to pay the Chamber of Commerce \$2,000 a year for the use of the trading facilities offered, in return for the privilege of using an exclusive corner, and the use of the inspection and weighing service of the Chamber by members only. No official reply has yet been made to this proposal by the Board of Directors of the Chamber, but it is believed that some arrangement along this line will be made, as the grain men are willing to make fair compensation for the special facilities provided for them, as long as these facilities are not at the service of outsiders not entitled to them.

* * *

Henry L. Goemann was appointed as a representative of the Cincinnati grain trade to attend the recent meeting held in Chicago by railroad interests and hay and grain men from all over the Middle West, in order to discuss the proposed increase in minimum weights of carloads of various commodities, including hay and grain. The matter is regarded here as of considerable importance, and local men, with others interested in the grain trade, object seriously to any raise in minimum weights.

* * *

H. Lee Early, of the Early & Daniel Company, and president of the Cincinnati Grain & Hay Exchange, has been designated by President Powell, of the Chamber of Commerce, as a member of the committee of that body which will meet with a similar committee of the Business Men's Club to discuss plans for a proposed merger of the two organizations, which are the largest and most important of their kind in the city. The Chamber of Commerce now has affiliated with it virtually all of the smaller trade and civic organizations of the city, while the Business Men's Club features the club and social end of business life more prominently. Probably the majority of the members of each organization are also members of the other, and their merger is generally favored, if suitable arrangements of financial and other details can be made. The consolidation would

give Cincinnati one of the strongest and most compact business organizations in the country.

* * *

The winners of the five-acre corn-growing contest held in Hamilton County under the auspices of the Cincinnati Chamber of Commerce have been selected, after careful tabulation of figures and inspection of the crops by committees appointed for that purpose, and will go to the celebration of Farmers Week at Columbus, January 31 to February 4, at the expense of the Chamber. The average yield for the entire county, according to the computation of R. D. Van Atta, county agricultural agent, was 70.5 bushels an acre, which is considered extremely good. The best results were obtained where alfalfa sod had been turned over and new tested seed corn used.

* * *

The annual corn show of Pomona Grange, of Boone County, Ky., held in Covington, Ky., attracted much interest and attention from Cincinnati grain men, who have for some years done much to encourage the production of increasing quantities of first-class grains in this immediate vicinity. The display was one of the best in years, and covered all varieties of corn, the boys' exhibits being especially good. The prize-winning exhibits were disposed of at auction, the proceeds going to an orphans' home.

* * *

The Dover Stock Company has been incorporated at Dover, Ohio, with a capital stock of \$2,000, for the purpose of handling hay, grain, mill-feeds and similar products. E. C. Cody and others are among the incorporators.

* * *

The Farmers' Co-operative Grain & Merchandise Company, recently organized at London, Ohio, with a capitalization of \$20,000, will erect an elevator and handle a general grain business. James F. Gallagher, William Snyder, George Langden, Benjamin Higgins and M. W. Sullivan are interested in the enterprise.

* * *

The Grafton Feed & Storage Company of Grafton, W. Va., and the Fairmont Feed & Storage Company, of Fairmont, W. Va., are related enterprises which have been organized by a group of business men in the two towns, including J. H. Freeman of Grafton, H. C. Posten and F. and H. Shain, of Fairmont, and others. Each company has \$50,000 capital stock.

PHILADELPHIA

E. R. SIEWERS - CORRESPONDENT

WITH the Canadian Grain Commission under official orders of the Dominion Government, having seized 20,000,000 bushels of wheat placed in the Fort William elevators on Lake Superior destined for delivery to ports on the Atlantic seaboard, under the pretext of foiling the speculators, much of which was in reality the property of the American grain dealers, and threatening to take absolute control of 150,000,000 bushels more, from the season's yield that is available, together with the present railroad embargo on wheat, as well as all other export grain, already sold and awaiting shipment for the allied hosts in Great Britain, France and Italy, the grain trade has been complicated and demoralized in a way that was never known before in the history of this port. While it is understood that here is still a round 100,000,000 bushels of wheat or even more now being held by the farmers in Canada, that can be kept in reserve for the future necessities of the British Govern-

ment, this drastic action which has seriously disconcerted the business plans of American grain shippers and exporters, is perhaps the strongest indication that the foreign war will be a long drawn out campaign. What the future moves of Canada and the rigid restrictions of the trunk lines which have their traffic terminals here as well as elsewhere throughout the East, is exceedingly difficult to clearly determine just at this time.

* * *

A highly important meeting in the direct interests of farmers, agriculturists and crop raisers of four states, Pennsylvania, New Jersey, Maryland and Delaware, the principal aim of which is to unite in a comprehensive plan for inaugurating scientific and intensive farming, is to be held in this city during January. Representatives from 16 rural progress societies will participate in the discussions, and the heads of a number of prominent state colleges, with experts from the United States Bureau in Washington, D. C., together with governors of the foremost agricultural states of the Union, are expected to make topical addresses.

* * *

Some of the interior counties of Pennsylvania, during the first week in December, report here that exceedingly fine yields of choice quality, first crop hay have just been cut and garnered, a very unusual condition for this late end of the season.

* * *

The boys and girls of the Buckeye State, belonging to the Juvenile Corn Growers' Association of Ohio, in numbers filling a special train, with Governor Willis as their paternal host, were the guests of the city on their annual excursion to the East, and received many substantial prizes for the best exhibits of cob corn as displayed on the grain tables at the Commercial Exchange. Some of the girls boasted of raising 153 bushels to the acre, double the state average.

* * *

The authorities here are of the opinion that on or before December 15 the export traffic embargo will be lifted.

* * *

John W. Cooper, a former well known president of the Grocers' and Importers' Exchange, died at the age of 74 years. He organized the old time business firm of Cooper and McCahan, the latter individual now being the head of the big independent sugar refinery located in this city.

* * *

Nominations will be made January 15 for officers, and six directors of the Commercial Exchange, the election to follow 10 days later, and from all indications the event will be a sort of love feast. President Graff, Vice-president Bell, Treasurer Beatty will probably succeed themselves.

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Keusch & Schwartz Company, Inc., export grain and feed, represented here by Aaron Cohen, have re-established a private wire on 'Change to facilitate their increased business.

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President Louis G. Graff and Director Winfield Scott Woodward represented the Commercial Exchange, and Governor Brumbaugh's appointments to represent Pennsylvania at the twelfth annual convention of the National Rivers and Harbors Congress in Washington, D. C., included Statistician Frank S. Neall, President Bartol and Secretary Albrecht of the Bourse and President Holton and Secretary Sharwood of the Maritime Exchange.

* * *

For 11 months business in 1915 the receipts of wheat were 30,606,804 bushels; oats, 17,315,115 bushels; corn, 3,757,527 bushels; and for the same time in export, wheat, 27,158,806 bushels; oats, 9,364,196 bushels; corn, 1,866,702 bushels.

* * *

The great New York blockade, which at one time held no less than 300 miles of freight cars, mostly stored with flour and grain, has turned considerable export grain to this terminal, the Lehigh Valley Railroad sending this way all export traffic possible, thus preventing a large number of much needed

cars being temporarily used as storage warehouses. As to the causes, the railroads blame the shippers for becoming too greedy and making sales and big contracts for foreign grain receivers without the least regard for future deliveries, while the shippers get back at the transportation companies' bad management and woeful lack of facilities. The Philadelphia & Reading Railway is preferring this port as a matter of favorable unloading business, and taking it all in all the grain embargo here is by no means as serious as at other ports, like New York and Baltimore. The marine agents put the bulk of the blame upon consignors of grain for the scarcity of boats to cargo it abroad, and the universal cry of the steamship men is, "Patronize your port and create a liberal demand for bottoms," and "Philadelphia should have more regular steamship lines to take care of its steadily increasing outgoing grain trade."

Since the accumulation of cars of grain at this port for export, the Pennsylvania Railroad Company and Philadelphia & Reading Railway Company have issued embargo notices, restricting further shipments of bulk grain of any character, consigned, reconsigned or to be reconsigned, to Philadelphia for export until further notice. This, however, will not affect shipments for domestic grain for local delivery at Philadelphia.

ST. LOUIS

R. O. JOHNSON - CORRESPONDENT

LIKE other important grain markets of the country, St. Louis had its price whirl upward in wheat futures, following the announcement that the Canadian Government had commandeered 20,000,000 bushels of wheat in Canadian elevators. As usual under such conditions many traders reaped big profits, while others suffered losses, but the majority of accounts were on the right side of the market, and, according to newspaper stories and reports circulated on the Merchants Exchange, the winnings largely exceeded the losses. Sentiment generally is still largely on the buying side, and some enthusiastic traders even predict prices as high as a year ago, when the May option at the crest of the big war boom, sold here at \$1.62½.

It must be remembered, however, that last year prices were under the influence of competitive buying from all sources, while now the wheat supplies for England and her allies are being bought through one or two sources, and at price periods which appear more justified as the surplus of the crop is used up, and not in enormous amounts at any old price. That England intends to protect her purchases as much as possible is shown by Canada's action, and there is every reason to expect that the same policy will be followed in purchasing the Australian crop. That wheat futures were carried about 30 cents too high last year was indicated by the action of May wheat in Chicago in the closing month of the option, when after selling at \$1.67 liquidation set in and without any visible support the price simply melted to \$1.37, with a rally to a final sale at \$1.39. That, under ordinary conditions, even after the big break, prices still were too high, was also suggested by July wheat, which continued to decline after the May option had expired, and ultimately hit around the dollar mark.

If the world's crop is the record that is officially estimated, and the American harvest anywhere near the Government's estimate of 1,002,000,000 bushels, there is hardly any good reason to expect excessive values like a year ago, unless, as some well-informed traders assert, the Government's estimate is 75,000,000 to 100,000,000 bushels over the actual harvest, which was cut down by excessive rains in the harvest season. Cash wheat houses, like the speculative houses, have had nothing to complain of, for receipts of wheat have been running heavier in this market, and prices have been on a satisfactory basis.

Export trade has been quiet, but more business has been booked than is admitted by the houses.

* * *

The failure of the grain and stock firm of Payne & Becker, with offices in St. Louis and Kansas City, came as a surprise to members of the Merchants' Exchange, as it was thought the company was in a prosperous condition. An involuntary petition in bankruptcy, filed by creditors, claimed that there were assets of \$160,000, but that these were pledged for loans to the amount of \$135,000. Bontie A. Becker was the Merchants' Exchange member of the firm. Otto Bollman, president of the Republic Milling Company, East St. Louis, Ill., claimed that he had advanced \$39,000 to the firm to buy corn, and that the grain had never been received.

* * *

The death of Michael McEnnis recently, 82 years old, a veteran of the Mexican war, and the oldest living alumnus of St. Louis University, and a former president of the Merchants' Exchange, ended an interesting chapter in St. Louis grain history. Mr. McEnnis, in 1846 joined the United States light artillery against Mexico, and was detailed to carry dispatches from the front to the United States. He was wounded while on duty and received permission to return to St. Louis. He was one of the original members of the Merchants' Exchange, and often told how he was driven from the floor at the point of a bayonet, along with other Union soldiers who objected to expressions of sympathy for the South. After the soldiers were expelled from the Exchange a new exchange was organized. This was called the Union Exchange. Ultimately the two exchanges were consolidated. Mr. McEnnis was elected vice-president of the Exchange in 1879, and in the following year was defeated for the presidency by 3 votes. In 1881, however, he was elected president by a large majority.

* * *

Roger Annan, president of the Merchants' Exchange, Marshall Hall, of Marshall Hall-Waggoner Grain Company, and John L. Messmore of Ballard, Messmore Grain Company, represented the Merchants' Exchange at the annual convention of the National Rivers and Harbors Congress at Washington, D. C., December 8, 9 and 10.

* * *

E. L. Waggoner, vice-president and partner with Marshall Hall in the Marshall Hall-Waggoner Grain Co., has sold his stock interests in the company to Mr. Hall and others, and will retire from the business. The Marshall Hall-Waggoner Grain Company was organized about a year ago, with a capital of \$400,000, to succeed the W. L. Green Company, one of the oldest grain firms in St. Louis. Mr. Waggoner had been with the old firm for six years and was its vice-president. In an announcement to the trade, Mr. Waggoner stated that his health had not been of the best recently, and that he desired to take a long rest. He expects to spend the winter in Florida, and has not settled definitely on any business plans for the future.

* * *

Several members of the Merchants' Exchange are planning to put an "insurgent" ticket in the field at the annual election to be held January 9. The movement is being fostered by George Harsh, of the George Harsh Grain Company, and R. W. Bosselier, a public accountant, who led the "insurgents" three years ago, when James W. Garneau was elected president over the regular nominee, N. L. Moffitt. Under an unwritten rule of the Merchants' Exchange the vice-president succeeds to the presidency and as this office now is held by Thomas K. Martin of the Graham & Martin Grain Company, he will be candidate for president on the regular ticket. So far the insurgents have not announced their candidate.

The insurgents will contest the election, owing to a recent petition of Mr. Bosselier's, signed by 70 members of the Exchange, requesting that a vote of members be taken on the advisability of increasing the insurance on dead members from the present sum of \$150 to \$500. The board refused to officially accept the petition or submit it to a vote of members. Since then, however, a vote of members will be

taken on December 16, on the proposition to amend the rules of the exchange by adding the following paragraph, which will provide a means whereby a disapproved petition, like the recent Bosselier petition, may be submitted to a vote of members:

Propositions to make new by-laws or rules, or to amend existing by-laws or rules, shall not be submitted to a ballot of the members unless adopted by a vote of the Board of Directors at a regular meeting, except as provided in Paragraphs 4 and 5 of this Article.

Such a proposition may be submitted to the Board of Directors at any regular meeting by endorsement and recommendation in writing signed by at least fifty (50) members. It shall then be approved or disapproved at the next regular meeting of the Board, or at a special meeting before the date of such regular meeting, and, if approved by the Board, shall be submitted to a vote of the members within twenty (20) calendar days thereafter. If the proposition is disapproved by the Board, it shall forthwith be posted prominently in the trading room of the Exchange for ten (10) calendar days, with the reasons for its disapproval by the Board.

A disapproved proposition may, after the expiration of said ten (10) days, be referred to a vote of the members by the submission to the Board, at a regular meeting, of a new endorsement and recommendation in writing, signed by at least 10 per cent of the members in good standing, and it shall thereupon be the duty of the Board to order a vote of the members to be taken within twenty (20) days in accordance with Paragraphs 1 and 2 of this Article XII.

Mr. Martin's friends believe that this amendment will detract materially from the strength of the insurgents at the election, and they are confident that he will be elected.

* * *

The Connor Bros. Grain Company, St. Louis, which failed March 5, 1914, lost a suit recently filed by John V. Lee, trustee in bankruptcy, to recover \$8,188.89 from the Mechanics-American National Bank. The trustee sued on the claim that within 4 months from the filing of the petition, Connor Bros. turned over to the bank, securities to cover a debt of \$8,000 owed to the bank by the company. The trustee alleged that this transaction tended to make the bank a preferred creditor.

BUFFALO

ELMER M. HILL - CORRESPONDENT

DEVELOPMENT of the upper Buffalo River and the protection of interests along this improved waterway are a few of the objects of the Upper Buffalo River Improvement Association which was organized early in December by representatives of elevators, mills and big malt houses in this section of the harbor. This association is in line with similar organizations of elevating and mill interests at other lake cities and it is the intention of the members to use joint influence on all matters pertaining to the development of the river.

Among the interests represented in the new association are the Electric Elevator, American Malting Company, Superior Elevator, Eastern Grain Mill & Elevator Corporation, Husted Milling Company, and others.

Special attention was directed at the first meeting to improving the turn just below the Louisiana Street bridge, and matters such as shore protection, keeping the river open and the ice broken throughout the winter months so that grain carriers can be handled with comparative ease to and from elevators and mills to the anchorage grounds at the outer breakwater; increasing the size of the turning basins to accommodate larger grain boats; straightening out bends in the river and other harbor improvements were considered.

Those on the Executive Committee at present are: E. M. Husted, of the Husted Milling Company, chairman; Nisbet Grammer, president of the Eastern Grain, Mill & Elevator Corporation; C. A. Collins, of the Buffalo Union Furnace Company.

* * *

A deputation which included members of the Dominion Parliament representing St. Catharines, Ont.,

recently visited Ottawa urging the improvement of harbor facilities at Port Maitland and Port Colborne, Ont., so as to accommodate Canadian grain carriers and other lake ships. The desirability of rail connection with American ports via the Niagara frontier was also discussed.

* * *

Steps have been taken by the Canadian Government to have all the grain commandeered at the Canadian head of the lakes, handled through the port of Buffalo. With this end in view the Dominion authorities have appointed Lunham & Moore, New York exporters, whose Buffalo representative is Charles H. Williamson, the Dominion's official grain agent at this port. According to advices from Ottawa the Government decided that it could secure the best service in the way of exporting the grain by centralizing it at Buffalo, from where it can be forwarded to whatever seaboard port the Government orders it shipped. Mr. Williamson is manager of the Grain Clearance Corporation of Buffalo. He is being congratulated by grain men upon his appointment for he is practically representing the Dominion Government in handling the commandeered grain on the lakes.

* * *

F. A. McClellan, president of the Buffalo Corn Exchange, has sent a telegram to the Interstate Commerce Commission at Washington protesting against the new West tariffs issued by the New York Central Railroad Company, to become effective January 1, 1916. The protest states that the operation of the proposed tariffs would divert from Buffalo a large proportion of rail traffic owing to withdrawal by the Pennsylvania Railroad from the New York Central road of certain transit privileges which heretofore have been enjoyed by Buffalo elevator and milling concerns.

* * *

Tentative plans are being made by C. A. Finnegan of Buffalo, Theodore Hofeller of Buffalo and Abraham Weber of Louisville, Ky., composing the new syndicate that has purchased the Buffalo & Susquehanna Railroad Company's property from Buffalo to Wells-ville for \$800,000 and outstanding obligations, for the construction of a large grain elevator on the 25-acre plot, fronting on the inner harbor with more than 2,000 feet of dockage space, which is included in the purchase.

* * *

In the passing of the old Union elevator, Buffalo's harbor entrance loses one of the landmarks that figured extensively in the early operation of grain handling at this port. Some days ago the work of razing the structure was started and it did not take long to bring it down to the level of the wharf upon which it has stood. The Union elevator had a capacity for 100,000 bushels and was built in the early sixties by David S. Bennett, who sold it to the Lackawanna Railroad in 1893. The Union elevator has not been worked since 1908 with the exception of two days about two years ago. Being a wooden house, the insurance was so high it could not have been operated on a paying basis, especially in competition with the many modern concrete elevators that have made their advent in Buffalo within the last few years.

* * *

Plans have been filed with the Bureau of Buildings for the erection of a \$16,000 warehouse of steel and concrete on the upper Buffalo River for the Archer-Daniels Linseed Company.

* * *

Fire damaged the plant of the Churchill Grain & Seed Company at 1037 East Seneca Street to the extent of \$1,000. A hot journal, it is reported, was the cause of the blaze.

* * *

Buffalo elevators during the month of November handled 44,770,000 bushels of grain as against 48,000,000 bushels in October. These figures are somewhat misleading for the houses owing to weather conditions and resulting delays worked less days in November than in the preceding month. Three days were lost on account of the blockade in the St. Clair River and two more days owing to high wind and low water in the Buffalo harbor. So all things con-

sidered, the elevators worked faster last month than they did in October. Up to the end of November this season the elevators have handled 161,491,000 bushels while in the same time last year they handled 157,442,000, an increase of 4,000,000. It is now believed the local houses will handle at least 200,000,000 bushels, including storage cargoes, which will be a world's record for any port.

* * *

Hull insurance expired at 12 o'clock on the night of November 30 last but boats that were delayed at Fort William and Port Arthur on account of the action of the Canadian Government seizing grain in elevators were granted an extension of 24 hours.

* * *

The demand for grain tonnage in the Lake Superior grain trade is only fair and chartering is being done at rates ranging from 4 to 4.5 cents.



AN increased movement of wheat into Kansas City has been absorbed readily and elevator stocks have gone up but little. The market, of course, is feverish and uncertain as the result of the advances the first part of the month. Dealers are unable to determine whether or not the movement is the result of secret foreign buying or of domestic speculation. Whatever it may be, there has been much buying to cover grain sold at the lower prices and the demand has continued good.

Shipments in November were somewhat over those of the same month in 1914, with 10,981,900 this year and 10,777,050 a year ago. Corn receipts show a heavy increase, although both the corn and wheat in the elevators are far below those of a year ago. A statement of the grain held in elevators on December 6 shows wheat to be only 4,945,670 now as against 9,594,226 in 1914.

Half a million bushels of wheat have been delivered the first week of the month on Kansas City December contracts. Redeliveries amount to 110,600 bushels with but little wheat and oats tendered.

* * *

The corn movement this year is much unlike what it has been for several seasons past. The present situation shows prices in Memphis and the South lower than at Kansas City and higher at Omaha and other more northern centers. That has resulted in large shipments to the North while none are going to the South, the first time for years such has been the case. Dealers here believe the South has almost enough feed to take care of itself.

Receipts of corn here in November showed 1,676,250 bushels as against 698,750 a year ago. The shipments from here were 535,000 bushels, a big increase over the same month of 1914 when they totaled only 275,000 bushels. Corn held in the elevators is given as 142,198 bushels as against 207,433 a year ago. The sale of corn products is slow.

* * *

A new order affecting the absorption of switching charges on grain and grain products will go into effect on December 22. It will amend the rule recently promulgated in Western Trunk Line territory under which inbound switching and reconsignment charges on carloads at market and reconsigning points would not be absorbed by the outbound carriers until 90 per cent of the inbound grain had been shipped out. This rule is now being made more specific, providing that no absorption will be made except where the line absorbing a charge receives the haul outbound upon 90 per cent of the inbound tonnage.

* * *

Export firms on the Kansas City market were doing but little business the early part of this month. Advances here without corresponding advances on the other side and an increase of four cents on ocean freight largely stopped foreign trading. Dealers here say the market will have to ad-

just itself to a lower level or Europe will have to accept advances. This business has been more or less restricted all year.

* * *

F. W. Lake of the Hall-Baker Grain Company believes the average miller has but about a 30-day supply of wheat. Receipts at the country elevators of his company have been down slightly in the first 10 days of this month.

* * *

The new elevator of the Chicago & Alton line at First and Lydia Streets has just been opened. It is being operated by E. D. Fisher & Co. It is built of re-enforced concrete, without the use of wood anywhere, and has a capacity of about 300,000 tons. The constructors were Wells Brothers of New York, Chicago, and Kansas City. Another new elevator being built here is that of the Kansas City Southern.

* * *

The receipts of oats here in November was less than half that for the same period of a year ago, the figures showing 325,300 bushels against 748,000 bushels in 1914. Outbound shipments showed a similar contrast, having been 161,500 bushels this year and 492,000 bushels a year ago. Stocks held in the elevators are 607,198 bushels.

Receipts of kaffir, barley, rye and flax are all largely in excess of last year, as are the shipments from here. Barley receipts were 369,600 bushels in November, with holdings of only 67,440 bushels.

* * *

The Farmers' Union of Athol, Kan., has decided not to buy the elevator of the Co-operative Grain Company and will build a new one there.

* * *

A good demand has set in for the better grades of hay, with the quality of the increased receipts comparatively low. The month of November found inbound shipments totaling 31,572 tons as against 27,048 tons a year ago. Outbound shipments were down, however, with a record of only 5,220 tons.

The market is firm on the higher grades. The lower grades are not meeting such heavy demands as they have in previous years, as dealers here believe there is a large amount of feed on hand throughout this section.

* * *

Letters received from J. C. Mohler, secretary of agriculture for the state of Kansas, speak of heavy corn yields throughout the state. He declared that yields of 60 and 70 bushels to the acre will not be unusual. To offset this, however, is the letter recently received from M. H. Hoffman of the Ames Agricultural College, Ames, Iowa, by Broadnax & McLiney. Mr. Hoffman wrote that not over 25 per cent of the Iowa corn crop will be fit to market. In the northern part of the state it won't exceed 10 per cent, he said, while conditions in the southern section are very spotty.

* * *

Two new members were admitted to the Kansas City Board of Trade last month. The first was Arthur J. Izzard, who is a member of the firm of Harris, Winthrop & Co. His membership was on a transfer from the certificate of Benjamin F. Swartz of Chicago. The price was \$4,000, including the transfer fee of \$500, a decline of \$1,500 since the last previous sale.

The other new member is W. H. Marshall, president of the new grain firm of W. H. Marshall & Company. He was admitted on a transfer of the late Mason Gregg. Mr. Marshall has opened offices in the Board of Trade annex.

* * *

George A. Aylsworth, of Aylsworth-Neal-Tomlin Grain Company, believes the recent advances in wheat have been caused by secret foreign buying of which domestic dealers have no information.

"The foreign governments have taken over purchases in this country and by making them through such firms as the Morgans or Armour have prevented us from learning of the movement," he said. "A year ago foreign trading houses were doing the heavy buying and American dealers were able to acquaint themselves with the fact. Now,

however, the buying is being done largely under cover. In addition, there is much speculation, largely bearish because of reports showing heavy stocks everywhere."

* * *

A hearing on the minimum weight case will be held here on December 22 by the Interstate Commerce Commission.

* * *

C. E. Shock will build a new elevator at Clark, Mo. The Equity Exchange of Kingsdown, Kas., also will construct a new elevator.

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The first public auction of prize seed corn was held in Marshall, Saline County, Mo., December 4, when 600 bushels entered in the county contests were offered. The first bushel sold for \$25 and the first ten bushels brought \$138.50.

* * *

Kansas elevator men have commenced to complain of a car shortage. The state Public Utilities Commission was asked on December 6 by the Trego County Co-operative Association, Collyer, Kan., to compel the Union Pacific to furnish cars as they had been unable to obtain them for 30 days. The complaint was gone into informally and cars probably will be furnished at once.

TOLEDO

E. F. BAKER - - - CORRESPONDENT

THE worst feature of the grain situation in Toledo is the car shortage which has been prevalent for some weeks past and covers practically all of the Toledo railroads. There is now a shortage of practically 500 cars and every elevator in the city is handicapped and unable to make deliveries. The receipts and shipments during the past week have been fairly heavy and there has been several cargoes of grain by lake, although the lake season is practically over and the season is officially closed here. A few ore and coal boats are also moving but merely as a method of clearing up the local docks. The receipts for the week were: wheat 619,000 bushels; corn, 112,800 bushels; oats, 88,000 bushels. Shipments, wheat, 300,800 bushels; corn, 37,000 bushels; oats 91,700. The grain in receipt here is showing some improvement over the earlier receipts.

* * *

Toledo grain men have taken action protesting the 1 per cent taxation on grain. They want the tax reduced to one-half or one-fourth and suggest that lumber, iron, coal and munitions be taxed to make up the deficit. The Produce Exchange addressed United States Senators Pomerene and Harding and Congressman Sherwood concerning the matter and appointed E. L. Southworth and A. W. Boardman, both of whom are now in Washington attending the Rivers & Harbors Congress, to take the matter up personally before the tax commission.

* * *

The Young Grain Company is planning to move within a few days to the thirteenth floor of the Second National Bank Building and is not a bit superstitious about it either. This concern is next to the last of the grain concerns of the city to remove from the Fifty Associates Building which for nearly half a century housed practically all the grain men in the city.

* * *

Archie Gassaway, the popular secretary of the Toledo Produce Exchange, recently suffered an attack of sciatic rheumatism. He is now back at his desk in the 'Change room.

* * *

Jesse Young and Charles Mollett, of the Young Grain Company, started in a brand new car to drive to Jewell, a small town about 50 miles from Toledo, a few days ago. They went to attend a meeting of the Jewell Farmers' Elevator Company. They got back about three in the morning and have been so busy with explanation of just "how it happened"

that thus far they have forgotten to make a report of the meeting, hence none can be given here.

* * *

The Deshler Farmers' Elevator Company has been organized at Deshler, Ohio, and has been incorporated with a \$12,000 capitalization. Shares will be offered at \$25 each. F. H. Schweibert is the acting secretary. Both stock and grain will be handled.

* * *

Charles G. Cameron, salesman for the Churchill Grain & Seed Company, is suffering from a broken arm. He fell through a hatchway from the second to the first floor.

NEW YORK

C. K. TRAFTON - - - CORRESPONDENT

SINCE the beginning of the great war in Europe many things have occurred to explode the ancient theory that the vast stretch of the Atlantic Ocean between that continent and ours would shield us from all harm growing out of wars in that part of the globe. To the outside observer it might seem difficult to trace a connection between that war and the serious congestion of freight traffic that is now causing so much trouble to all concerned in this country, but especially in the East. That the war is largely responsible, however, is undeniable. For one thing, the enormous requirements of the fighting nations in the shape of war munitions of all kinds has led to uncommon activity in manufacturing plants all over the country which turn out such material. This in turn has resulted in remarkably heavy shipments from the factories to the seaboard. Under normal conditions it is quite likely that this huge volume of traffic might cause considerable congestion, but the bad conditions have been aggravated by another out-growth of the war, namely, the striking shortage in the number of steamers available to carry the merchandise to Europe.

Thus it will be seen that the war operates both ways in causing the vexatious tie-up of freight business. With the movement to the seaboard unusually heavy and the ocean transportation facilities seriously inadequate, the piling up of freight at terminals and on sidetracks was the natural outcome. Those in a position to know state that loaded freight cars billed to New York are lined up along the roads for remarkably long distances into the country, it being claimed that in some cases the congestion is in evidence 200 to 300 miles inland. It is said that 450 cars of export flour and 125 cars of lumber headed for New York are stalled on the Pennsylvania Railroad, which is said to have over 6,000 cars on tracks in this vicinity. In Philadelphia it is said that there are nearly 2,000 cars waiting to unload wheat, while nearly 3,000 are said to be waiting in Baltimore, the elevators in both ports being full and unable to discharge because of the shortage of ships.

Because of the great accumulations at various ports some of the railroads have declared embargoes on certain classes of freight. Among others the Pennsylvania has placed an embargo on export flour and lumber to New York and on export grain to Philadelphia and Baltimore; the Lackawanna has put an embargo on all export freight, and the Baltimore & Ohio has an embargo on export iron and steel ore to New York. On account of the enormous shipments being made every week from this port many ships arriving for cargoes have been unable to find dockage and have been forced to anchor in the harbor or down the bay. This, of course, has caused a marked increase in the demand for lighters and under the unprecedented circumstances the supply of these has been found to be insufficient. This shortage, however, is not quite as bad as it seems, being traceable mainly to the fact that too many lighters have been trying to unload at the ships simultaneously, causing further delays, whereas if ships were more plentiful there would be a more even distribution of lighters which could then do their work more rapidly and efficiently.

Members of the hay trade in this market have been greatly excited recently by what they consider an unnecessary and unjustified interference with their business by John J. Dillon, head of the New York State Department of Foods and Markets. According to Mr. Dillon, both the producer and buyer would derive benefit from his proposed plan to bring hay from up-state to this market and sell it at public auction. The hay men, on the other hand, claim that the benefit if any would be insignificant. It was announced that the first sale would consist of 10 car-loads, but this program could not be carried out because the railroads had placed an embargo on hay shipments on account of the great freight congestion at all terminals. That there is a serious tie-up of freight cars in this territory and extending for many miles inland cannot be denied, and hence the evidence as far as that point is concerned at least, seems to be against the Commissioner. This failure to carry out his plan has displeased him greatly and he has asked Governor Whitman and also the Interstate Commerce Commission to assist him, maintaining that the embargo was not warranted, being simply a scheme of the local hay men to keep the hay away from the local market until they are ready to receive it. This claim is described as "manifestly absurd" in some quarters.

* * *

Culver Ferguson, well known for many years to members of the hay and grain trades, and president of the Brooklyn Hay & Grain Company, died last month, aged 78 years.

* * *

Benjamin E. Saveland of E. W. Wagner & Co., commission merchants of Chicago, received a hearty welcome recently upon visiting his old friends in the local grain market where he was formerly one of the most prominent figures. He said that he thought well of corn but believed that the recent advance was enough for the time being as an enlargement would soon be witnessed in farmers deliveries. In addition, he stated that many farmers were not pleased with recent bids for wheat and therefore would not sell freely.

* * *

Raymond C. Rose of J. F. Hammers & Co., grain and feed distributors, has been elected to membership in the New York Produce Exchange and will have charge of the local office. Mr. Hammers will continue to manage affairs in Boston where he has his residence.

* * *

James Carruthers, head of the big grain house of James Carruthers & Co., Winnipeg, Montreal, and New York, while visiting on the Produce Exchange recently stated that the yield of wheat in Canada was excellent both as to quantity and quality, but he feared that some dealers had been disposed to overestimate the production. Not only does he think the crop somewhat smaller than recently stated, but he also believes that the bulk of it has already been sold. Therefore he looks for a falling-off in the primary movement ere long.

* * *

The tenor of President Wilson's message regarding the necessity of building up our merchant marine was commented upon favorably by many of those interested in shipping and in export affairs generally. The great scarcity of tonnage, which has been such a serious obstacle to all lines of business, has convinced many that now was the time to have a larger merchant fleet, especially to increase our business with South America. Still, there seems to be a wide difference of opinion as to whether the ships should be built for the Government or for private owners, but it is the consensus among conservative and unbiased traders that steps should be taken to enlarge the amount of American tonnage irrespective of whether its ownership is government or private. It is pointed out that unusual opportunities for expanding our foreign commerce are being lost simply because we have not sufficient ships to handle the business properly. Attention is also called to the fact that we have not been in a position to grasp the chances to make large sums of money which have been offered since the beginning of the war. It is said that foreign ship owners have in some cases

realized the full value of their ships on a few voyages as a result of the remarkably high rates received for freight room. Of course, a decidedly large proportion of this business has been in American products and manufactures, but the uncommonly handsome payments for transporting the goods abroad has gone into the pockets of foreign owners, simply because the supply of American bottoms has been so ridiculously small.

* * *

E. J. Skewis of the Skewis Grain Company, Minneapolis, Minn., visited friends in the New York market recently and commented upon the poor condition of much of the corn crop as a result of the bad weather, there being too much moisture in some sections to allow the grain to ripen as it should. Hence some fields were a total loss, while cattle allowed to graze in other fields were found to have lost weight instead of gaining. The shortage of good corn in Northern sections will necessitate heavy purchases in Southern markets.

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The news that Oscar K. Lyle was seriously sick at his home in Brooklyn, caused much sorrow among members of the grain trade. For over six weeks he has been absent from the Exchange and some of his friends are extremely fearful of the outcome. Mr. Lyle has been traveling as a crop expert for S. B. Chapin & Co. for many years and in addition to great personal popularity has won a nation-wide reputation as an efficient and reliable examiner of crop conditions in both grain and cotton territory.

* * *

One interesting out-growth of the remarkable deficiency in the supply of ocean tonnage was the report that three full-rigged English sailing vessels had been chartered to carry grain from Portland, Maine, to British ports. The boats in question were the *Carle*, *Chile* and *Terpsichore*. It is said to have been fully 35 years since a sailing vessel carried a grain cargo from Portland.

DULUTH

S. J. SCHULTE - - CORRESPONDENT

BUILDING of important additions to Duluth's system of elevators is forecasted for next year. The first definite move in the way of extensions has just come in the letting of a contract by the Capitol Elevator Company for the building of a 1,750,000-bushel reinforced concrete addition to its plant at a cost of \$700,000. The contract went to The Barnett & Record Company. Under the terms of the contract the addition is to be ready to go into commission by September 1 next. This will bring the capacity of the Capitol Elevator Company's plant at this point up to 3,250,000 bushels.

It was intimated some time ago that the Great Northern Railroad's elevator system at Superior will be augmented by the building of a 3,500,000-bushel house for which plans were prepared two years ago. Definite announcement regarding the project is expected to be made shortly.

* * *

M. L. Jenks, secretary of the Itasca Elevator Company, said that new records had been set for that plant in the volume of coarse grains handled this year. All-rail shipments of barley, rye and oats have been started from it, a contract for 100,000 bushels having been so far entered into to go forward in that way. The high vessel freight rates ruling late in the fall was a factor in the movement.

* * *

The present has been so far the most active season in the experience of elevator men at the Head of the Lakes, and it is admitted that the handling and storage capacity of the present plants is becoming inadequate in view of the steady agricultural development of that portion of the Northwest more immediately tributary to Duluth for marketing facilities.

As showing the active conditions ruling at the elevators here this year, it is to be mentioned that

the Great Northern elevators will handle 34,000,000 bushels of grain this season up to the close of navigation, as compared with 29,000,000 bushels up to the same period last year. For the present crop year, up till Aug. 1 next, A. D. Thompson & Co., the operators of the plant, count upon handling 45,000,000 bushels of grain as against the best previous record of 41,000,000 bushels set in the 1912 season. The plant set a new high record in last month in receiving and shipping 13,000,000 bushels of grain.

* * *

Handlings of the Consolidated Elevator Company for the present crop year, from August 1 up to the close of navigation aggregated 24,000,000 bushels, an increase of 5,000,000 bushels in round figures over the record of last season up to the same period. Stocks will be entirely cleaned out when the last steamer clears on December 12.

"The present has been the busiest season in our experience," said George H. Spencer, secretary of the company. "There is a lot of wheat still in farmers' hands, and we are looking forward to a good movement all through the winter."

* * *

The Globe Elevator Company reported grain receipts of 10,803,000 bushels at its houses for the season up till the close of navigation as against 10,000,000 bushels up till December 5 last year. That is regarded as an especially good showing in view of the fact that its Belt Line house was disposed of last spring to the Cargill Elevator interests.

* * *

The Cargill Elevator Company handled approximately 10,000,000 bushels of all grains at its two plants. As the company operated an additional house this season, a comparison with last year is not available. Said F. E. Lindahl, manager of the company: "We are well satisfied with our season's business and we shall be pleased if we do as well next year. Had it not been for the presence of wild oats we could have handled 40 per cent more wheat than we did. It was a problem with us and all the other houses to clean up the affected wheat as it came in."

* * *

J. F. McCarthy, president of the Capitol Elevator Company, said that its plant had been operated to its limits all season, and that he looks forward to a good movement of coarse grains, all-rail, to the East during the winter. Through the building of its new house, the company will be in position to extend its operations next year.

* * *

Returns of Charles F. Macdonald, secretary of the Duluth Board of Trade, show that past records went by the boards this season in the handling of grain at Duluth elevators. With three days to run before the season of navigation is officially closed, receipts of all grains at Duluth for the crop year from August 1 to Dec. 9 were reported at 93,189,349 bushels as compared with 70,573,168 bushels during the same period last year. Shipments aggregated 86,590,827 bushels as against 61,356,060 bushels a year ago. Receipts of wheat were 71,323,731 bushels against 48,263,040 bushels last year.

* * *

All-rail movement of coarse grains to the East has already begun, and it promises to attain large proportions during the winter months. The movement of oats has been backward this season and with the heavy tonnage of them harvested over the Northwest last season, the marketing is expected to be a feature from now on. With an advance on this market of 6 cents to 40 cents in oats during the past month, the price is becoming more attractive to growers and they are now showing a disposition to haul them in at interior points.

On that score, W. C. Mitchell, of Randall, Gee & Mitchell, said yesterday—"We are beginning to get advices of forwardings of oats to market on a more extensive scale, so that we are counting upon a good movement. Bidding for oats is good from the East at present and we are making all-rail shipments down that way."

A similar experience was reported by the White Grain Company. R. M. White of that house, is banking upon sharp export inquiry developing in the near future. Trade in oats is also picking up in the

Michigan lumbering districts. Just at the moment the demand in the Eastern markets for Western oats has been somewhat checked, he said, through re-selling by dealers whose purchases show substantial profits after the recent advances in the Duluth market. The movement in oats he considers to have only started as attested in the fact that receipts of them at Duluth during November were only 738,739,272 bushels as compared with 1,366,902 bushels for the corresponding period last year. Even after making allowances for the fact that farmers sold themselves dry last year, growers over the Northwest have an enormous tonnage of feedstuffs to be marketed. Up to the present the disposition of wheat has occupied their attention.

MILWAUKEE

C. O. SKINROOD - CORRESPONDENT

"MILWAUKEE grain trade is turning out better than expected this fall with the largest business on record," says Secretary H. A. Plumb of the Milwaukee Chamber of Commerce. "Milwaukee, like many other of the big grain markets, had small business in August and September when grain receipts were backward all over the West. But in November and December conditions have changed radically."

"Forecasts of the receipts of grain here for the calendar year, 1915, indicate that totals will be between 67,000,000 and 68,000,000 bushels, which compares with the high record year of 1914 a little unfavorably. During that year total grain receipts were between 76,000,000 and 77,000,000 bushels. But the record for 1915 will be the best ever made at this market except for last year. Prior to 1914, our best showing was about 60,000,000 bushels, so that nearly 68,000,000 bushels is a fine comparative showing for the year 1915."

"Another bad feature of the grain trade here this fall is the small supply of merchantable corn. Trade for some days has been almost negligible. Of course there is a lot of good corn in the country which has been produced in the South and the Southwest, but this is not largely tributary to the Milwaukee market and little of it will be shipped here. The corn crop from Iowa, the Dakotas and from southern Minnesota is too soft and too immature to be in good marketable condition."

* * *

"The present receipts of corn at Milwaukee are probably the poorest ever offered here," says Chief Inspector A. A. Breed. "Previous inspectors have told me that never has such low grade, moist corn been offered here as at the present time. Some of the cars inspected have run up as high as 35 per cent of moisture content. Once in a great while a car runs down to 17 or 18 per cent of moisture, but there are many samples which run up to 25, 28, 30 and even 32 and 35 per cent of moisture content. Probably the average moisture of the cars of corn here is about 25 per cent compared to a moisture of between 17 and 18 per cent as the usual run a year ago. There is little likelihood of any great improvement in corn receipts during the rest of the season, although frost will tend to dry the corn up and cold weather will help to bring about evaporation. While there will be some improvement in moisture showing, there will be much more water in the corn than usual all season. Some of the cars here have been so soft that water could be squeezed right out of the cobs and a cloud of steam and heat rolled out when the doors of the cars were opened."

"Rye is grading much poorer this year than usual. Last year there were many cars of No. 1 rye but this year a very large proportion of the receipts run to Nos. 2, 3 and 4 rye. Apparently the trade has become accustomed to the lower grades and is taking them just as readily as No. 1 rye was taken before."

"Much of the oats offered here is bright and clean, although there are evidences of bin-burned and stack-damaged oats. More of the farmers stacked

their grain this year than for many years and this has helped somewhat to bleach the oats and send it to market in whiter condition. Oats weights are running heavy and yields for the season have been very good. Trade in oats for the month of November at the Milwaukee market was very large.

"One feature of the Milwaukee barley trade has been the shipment of hard dry barley in large lots to this city for export. This is a peculiarly hard barley which would take much longer to malt than the ordinary barley, so that it cannot be mixed with any other kind of barley during the malting process. The barley crop of the season has been large and offerings at the local market have been of large proportions.

"Recent wheat sales here have been of smaller proportions and grades have been poorer. Early in the season the wheat offerings here were of good quality, but they seem to be largely mixed wheat that has been reconsigned from Minneapolis. Some of the other grains like barley have also been re-shipped in quantities here from Minneapolis."

* * *

Concrete and general building work is going on on the new 2,000,000-bushel elevator of the Chicago & Northwestern Railroad but it is not thought there is any prospect of finishing the elevator before the time for receipts to begin in the season of 1916.

* * *

Herman F. Franke, prominent grain trader at the Milwaukee market, thinks that the price of corn is going to be very strong before the season is over. He cites the fact that there is very little salable corn in the northern tier of states, that corn must be brought from farther south to accommodate a very large buying demand in Wisconsin this year.

"It is surely a fact that most of the corn this year will be consumed on the farms and its consumption will be during the winter while corn still keeps," said Mr. Franke. "This means a short supply and a prospect of much higher prices later in the season."

* * *

The Courteen Seed Company has given the writer the following expert resume of seed conditions expressly for the "American Grain Trade":

The close of 1915 finds the wholesale agricultural seed trade in an exceptionally healthy condition from a dealer's standpoint. There has been special inflation of prices but owing to climatic conditions at harvest last fall (which greatly reduced our prospective seed crops in both quantity and quality), prices above the average range of values for the past five years are in force, but all conditions point to the legitimacy of existing values.

Red Clover: The crop of this article, taking both the United States and Canada, is undoubtedly one of the shortest which we have had to contend with during the past 10 or 15 years and were it not for the surplus existing in both Italy and France much higher values would rule.

The receipts of the current crop at the Toledo market up to the end of December will hardly exceed 50 per cent of a five-year average, and even to get such receipts their market has advanced for their contract grade considerably higher than other terminal markets—from whom they have had to draw a portion of their receipts.

The larger jobbers have not as yet covered their spring requirements, and although we may expect fairly liberal shipments from Europe, there is no question but what they will be needed. Everything points to a steady, if not higher, market for the balance of the season.

Alsike: This article being harvested several weeks earlier than the red, the crop for the United States was nothing like so short as that of red clover; also, owing to the fact that Russia had a fairly liberal crop of alsike, a part of which she seemingly has been able to get out of the country to the United Kingdom and France, the United States has not had nearly as large a European demand as a year ago. Prices are moderate in view of those existing for red clover, but we hardly think that this seed is in as strong a position marketwise as the red.

White clover: The crop in Wisconsin was larger than the average for the past five years, the previous two or three years of high prices having stimulated the farmer to save his crop for seed and possibly to increase his acreage. Despite this big area, with the total absence of foreign seed, we have had the highest white clover prices in the last 25 years and it looks as though these values would be kept up to the end of the season as the supplies are extremely limited.

Timothy seed: The crop of this seed also suffered materially from unseasonable weather at harvest which

greatly reduced both quality and quantity. Supplies are moderate but adequate. But as country elevators and sellers have sold freely, the seed is largely at terminal markets and will undoubtedly be held for full values. A serious break in values is improbable.

Alfalfa: The average chop of this article in the United States is one of the shortest for years and in the almost total absence of importations from abroad, it looks to us as if the trade will be favored with the usual demand for spring sowing, so that higher values will be inevitable.

Lighter Grasses: Red top, Kentucky blue grass and the different rye grasses, including meadow fescues, seem to have been a good average crop with prices ruling very moderate. Car buyers for any of the above seeds can be accommodated by this company.

* * *

"The phenomenal seaboard and export demand is the biggest factor in the barley trade," said W. A. Hottensen, the barley expert of W. M. Bell & Co. "There has been an advance of some 10 cents per bushel in the last 30 days. Domestic and home buyers have been driven into line and compelled to pay the higher prices brought about by the big export buying. The receipts have been in excess of last year."

* * *

Clarke Fagg and W. P. Bishop were named as the representatives of the Milwaukee Chamber of Com-

kota. Mr. Caw has been a member of the firm of Caw & Lynch at Chatfield, Minn.

* * *

The December rate of interest has been determined by the finance committee of the Chamber of Commerce at 6 per cent.

* * *

Final estimates show that the Wisconsin corn crop was just 60 per cent of what it was for the harvest of 1914. Total production dropped to 42,000,000 bushels.

* * *

The Buerger Commission Company received what is believed to be the largest car of barley ever delivered in Milwaukee. It contained 2,289 bushels.

A GRAIN SHRINKAGE EXHIBIT

BY FELIX J. KOCH.

Grain men should be particularly interested in the accompanying picture, which portrays one of the most unique exhibits at the big San Diego Exposition. The exhibit in question is, in fact, a concrete representation of the result of keeping grain in storage.

That is to say, at the beginning of its arrange-



GRAPHIC REPRESENTATION OF SHRINKAGE OF GRAIN IN STORAGE

merce at the International Trade Conference in New York City.

* * *

Milwaukee bank clearings for the month of November were 14 per cent larger than a year ago. This indicates the brisk business conditions of Milwaukee, in line with more active trade in other parts of the country.

* * *

Traffic Expert Schroeder of the Milwaukee Chamber has called the attention of shippers to the following important case: "The Federal Grand Jury for the Eastern District of Wisconsin at La Crosse found an indictment against the firm of Stolte, Dangel & Foss, Reedsburg, Wis., for alleged violation of Sec. 10 of the Act to Regulate Commerce."

"Special agents of the Interstate Commerce Commission charged the company is not reporting to the railroad the correct number of cases covering their carload shipments. In other words, their billing to the railroad company does not represent the actual content of the cars. The penalty for each offense under the interstate law is a fine not exceeding \$5,000 or imprisonment in the penitentiary for not exceeding two years, or both."

* * *

A. G. Kneisler has been elected president of the Milwaukee Feed Dealers' Association.

* * *

Runkel & Dadmun, Milwaukee commission merchants, have chosen J. D. Caw as traveling agent in southern Minnesota, northern Iowa and South Da-

ment, very accurate measurements were made by the deviser of the cubic content of his grain in bin, and whether this shrank or took in moisture and expanded while so stored. The deductions of percentages on the results ran out to neat decimals and, based on this, the fun began.

The human eye, the mind, finds it rather difficult as a rule, to conceive things so fine as the decimal. Wherefor, to tell the tale, the lesson must be shown concretely. To this end the deviser arranged a great glass frame, fitting down over a shallow box, to contain the grain used as the toy. This box, then, was segmented across into twelve compartments,—one for each month of year.

Reference to the records showed the month in which there was least departure from norm in the grain.

All twelve of the sections were filled temporarily to this.

Then the actual use of the grain as toy, as pastime, if you please, began. Up and down, like the mark made by some cable message upon the tape, the line of shrinkage would go from this, according as the months went on and the season was wet or dry. All this must be portrayed in the grain and the whole were not worth the cost of frame if not exact.

Wherefor, in idle hours, the compilers toiled with the grain, raising the line at this place, lowering at that, referring to the map, compiling, estimating, and the like, until, finally, the completed product stood—a splendid study for grain men.



CUR BIN MAN'S DISTINGUISHED RELATIVES

Dear Mr. Bin Man:—Noticing your appointment as Bin Man in the "American Grain Trade," my father, Mr. Roscius Redfield Wheat, of Wheaton, a learned gentleman, in expressing his personal satisfaction (for he takes great interest in all family matters) explained to me that, when the Tritiums marched with Julius Caesar into Britain, they translated their family name into Wheat, a cognomen of which we, of course, are all proud. He said that the Wheatons, Wheatleys, Wheatstones, and all those tribes are sons of Wheats, the old Roman legionaries. He said that if there should happen to be a reunion anywhere of the Wheats (our family), the Ryes, Ryers, Ryersons, the Oates, the Otises, the Barleys, Barleycorns, the Corns, Cornells,—together with the first cousins of all of them, the Straws, Strawsons, Strawbridges and Strawns. he did not believe that a world's fair would hold them all, but it would call people's attention to the importance of grain and the grain trade. He said that probably many of the Whites are Wheats, and that thousands of these Johnsons, who are crowding out the old family names, started in with John, the son of Wheat. My father added that the Bradys are every last one of them lineal descendants of The Breadh, who ruled north of Tara, ages before the Pig Wind. But, about the war between the Bradys and the Lovers, that's another story, and anyway my father said he was coming in soon to thrash it all out with you.

Very respectfully, MAZIE WHEAT.

OUR CONFIDENTIAL CORRESPONDENCE

Readers of the "American Grain Trade" may avail themselves of our special information service free of charge. Names of inquirers will be kept strictly confidential.

Making Sure of Deliveries.

Country Dealer: A car of corn shipped to Baltimore has not arrived at destination after being six months en route. Have I any recourse?

There are two plans open to this dealer. First, follow up the shipment with an aeroplane sufficiently large for overtaking the car and carrying its contents to destination. Or, secondly, get bill passed by your state legislature making it a compound felony on the part of the railroad not to deliver the car at a given place and date. Both plans have been tried out with success.

Answering a Kansas Inquirer.

The fact that a single farm in a single county of the state has a partial crop failure does not indicate a general shortage in the country at large. It merely points to a future day when a bullish report will be wired to terminal markets from the farm, at a time when the large majority are hanging timorously to the short side of the market.

To Exterminate Fly.

Co-operative farmer: My wheat field is badly infected with fly. What would you recommend?

A plan that has been tried out with fair success is to have your hired man play a piccolo solo in a corner of the field at dawn. When the flies gather to join in the devotional exercises you can pick them off very easily with a charge of No. 10 bird shot.

The High Spots on the Market.

Anxious Speculator: Please state the high point reached by May wheat during the past 10 years.

This question can be answered only in a relative manner. May wheat always touches its high point immediately after the short seller has closed out his trade, due to exhausted margins.

And Don't Forget the Great White Way.

Up-the-State Shipper: I am a country dealer making a fair living. My friends tell me I have the specu-

lative insight. Would you advise me to sell out my business with the plan of going to the city to operate on the Board of Trade?

While there is no doubt it would be to your pecuniary advantage to come to the city and play the market, yet this consideration is offset by others of greater moment. The extra amount you would make on the Board would be quickly absorbed by head waiters, ticket scalpers and unscrupulous chauffeurs. We consider it timely in this connection to point our inquirer to the words of wise, old Seneca in the first century, spoken at his villa a safe distance from Rome: "This is the life."

Myopia Speculatorum.

Investor: What is meant by pyramiding trades?

This means briefly, that a buyer standing at the extreme point representing the distance from the vortex of the pyramid to the plane of its base, is not able to recognize the top.

FRANGIPANI

The illustrious family of Frangipani, at Rome, have their name (the breaking of bread) from their great benevolence in times of famine. The perfume called Frangipani belongs to a plant once named *plumeria alba*. In 1493, when Mutio Frangipani, a famous botanist, visited the West Indies, the sailors renamed the plant in his honor.

THE FORTUNES OF SAMMY SMITH

Away back before the war when James Buchanan was President, the parents of Sammy J. Smith settled on a piece of land on the Calumet River near the site now occupied by One Hundred and Twenty-second street, Chicago. Sammy J. Smith has been for more than 20 years a police operator at the South Chicago station taking the reports of patrolmen over the phone and presumably some of them patrolled this land, keeping off loiterers. Sammy's parents were not devoured by catamounts or scalped by Indians and before they died held a solemn council in which they adjured Sammy not to sell the land. He was offered first \$1,000 an acre, then \$1,500 and later \$2,000, but remembering the advice of the old folks, he refused to sell.

Finally the Chicago & Northwestern Railroad wanted Sammy's land on which to build the big 10,000,000-bushel elevator which is being constructed by Witherspoon-Englar Company of Chicago on the plans prepared by John S. Metcalf Company.

Then Sammy sold. Not very long ago he proudly exhibited to his friends a check signed by Marvin Hughitt, director in the Chicago & Northwestern Railroad. It called for \$32,500, almost \$6,000 an acre for the tract. Sammy's wife is preparing an elaborate wardrobe and they expect to take the first boat across as soon as peace is declared.

HARVEST IN 1860

The "Grain Trade's" Bin Man remembers the harvest of 1860. He was a boy of 10, and carried water in a jug to the harvest hands. Between journeys for water he carried bundles. His bare feet were tough, but still it was bad going in the stubble. The day was without limit, and there were four good meals—possibly the women had it as hard as the binders. The machine was a Manny reaper, carrying two men. One drove the team and the other stood astride a perch with his back to the driver and used a pitchfork in raking off the sheaves. The Manny reaper went around all right, hour after hour, making a noise as new to the farmers of 1860 as the chug of the automobile was new to the bicycle-riders of 1895. The gear-wheel left its imprint on the ground, and that odd mark lasted till the next plowing. Other farmers were cradling

in fields not far off. Of course the Manny reaper was an infringement of the McCormick patents, and long lawsuits followed in later years.

RUBAIYAT BY OMAR

With me along the strip of Herbage strown, that just divides the desert from the sown, where name of slave and sultan is forgot—and peace to Mahmud on his golden throne!

A book of verses underneath the bough, a jug of wine, a loaf of bread,—and thou beside me in the wilderness—oh, wilderness were Paradise enow!

And those who husbanded the golden grain, and those who flung it to the winds like rain, alike to no such aureate earth are turned, as, buried once, men want dug up again.—Edward Fitzgerald.

MAKING THE STORY

It was a dull night in the editorial rooms of the leading daily. The quick-eared City Editor thought he heard a noise on the street below. "Bill," he said to the star reporter, "go down and see what that is," and Bill went down. When he came back, he wrote busily, for the hour was late. "Bill, was it a story?" queried the City Editor. "Yep," said Bill, writing. "What was it, Bill?" "Well," said Bill, stopping his work, "the Fourth Vice-President of the three R's was going past, downstairs, and right at our front door he clutched his heart and cried out, 'I'm going to die!'" "Well?" "Well," said Bill, writing again hurriedly, "then he made good."

THE WOLF AND THE EAGLE (AFTER AESOP)

A wolf, after devouring his prey, found a bone in his throat, which gave him so much pain that he went howling up and down, importuning every creature he met to lend him a kind hand in order to relieve him; and at last he promised a tempting reward to any one that should undertake the operation with success. At last the bald eagle, flying very, very far from his own aerie, alighted, examined the endangered throat, and was stricken with a deep and noble sympathy. Nor was he the less attracted by the promise of unusual reward. Therefore the eagle first put the wolf on his most sacred oath, and ventured his beak and neck into the rapacious fellow's throat. In short, the eagle easily plucked out the bone and awaited the promised gratuity.

Then the wolf, turning his eyes disdainfully toward him, said: "I did not think you could be so unconscionable in your demands; for I had your head in my mouth, and could bite it off whenever I pleased, but suffered you to take it away without any damage; and yet you are not contented." Whereupon the eagle flew far back to his own aerie, and pondered—on sympathy, and such like.

WARLIKE STORY OF AUNT MARY

It was some years before the Great Conflict, and Aunt Mary, a widely-connected and highly-respected elderly lady of Philadelphia, went abroad in charge of a bevy of girls to study the cathedrals of England. They all proceeded successfully on their educational tour until they reached the city of Wolverhampton-on-the-Hamp, where Aunt Mary suddenly died, and the expedition sorrowfully returned to Philadelphia. In a great Presbyterian church near Fairmount Park, which was crowded with the relatives of the deceased lady, the casket was opened, and behold, instead of the peaceful face of dear Aunt Mary, they looked upon the side-whiskered and battle-scarred features of a Lieutenant-General of the Royal Army, whose gorgeous uniform was a mass of golden insignia—rows of medals, and circles of medals, and gold lace and golden stars wherever there was room over the brave heart that had ceased to beat.

It was then recalled that, on the day of Aunt Mary's death, there had also died, at Wolverhampton-on-the-Hamp, a hero of one of the South African wars, and doubtless here he was; but where was Aunt Mary? They went at once to the telegraph offices, cabled to Wolverhampton-on-the-Hamp, explaining the situation, and received the following dispatch:

"Bury the General privately. Aunt Mary interred here today with four batteries and six brass bands."



EASTERN

At Brattleboro, Vt., L. L. Marsh is building a new elevator plant.

At Waterloo, N. Y., Wm. L. Sweet expects to build an elevator and grist mill.

A 12,000-bushel electrically operated elevator is to be constructed at Hinsdale, Mass., by C. A. Pierce.

The Casino Grain Company of Charlestown (Sta. Boston), Mass., has been succeeded by R. W. and R. R. Kendall.

A new elevator is to be built at Salem, Mass., by the C. A. Ketchum Company to replace the plant recently burned.

Several improvements on the grain elevator of the St. Albans Grain Company, located at St. Albans, Vt., are to be made.

Monroe Weikoff has sold his elevator at Jamesburg, N. J., to Stonaker & Casey. Possession will be given on January 1.

W. L. Palmer & Co., of Medway, Mass., have organized to handle grain and hay. The capital stock of the company amounts to \$75,000.

The grain business of Chas. O. Parmenter & Co., at South Sudbury, Mass., is in the future to be operated as Parmenter & Whittemore.

The Seneca Falls Chamber of Commerce of Seneca Falls, N. Y., has planned the construction of a grain elevator and cold storage warehouse.

The contract has been let by the Westbrook Farmers' Union of Westbrook, Me., for the construction of a grain warehouse 22x40 feet at that point.

R. F. Henry, H. A. Beal and G. T. Van Alstyne have incorporated the firm of Van Alstyne & Co., to deal in grain, flour and cereals, capitalized with stock of \$20,000 at New York City.

At Pittsburgh, Pa., B. McCracken & Son has been incorporated to deal in grain, hay and mill produce. The organizers of the firm are: C. H. Cannahan, W. H. Ritenour and J. C. Hemsburg.

Contracts have been let by the Western Maryland Railroad Company for the construction of a large grain elevator at Port Covington, Baltimore, Md. The plant is to cost about \$1,000,000.

The Tioga Mill & Elevator Company of Waverly, N. Y., has established a farm bureau in connection with its business. This department is maintained with the view of helping farmers in their feed problem.

The Farnel Manufacturing Company, feed manufacturers of Buffalo, N. Y., has arranged for the construction of an elevator and mill at that place. Dudley M. Irwin, a Buffalo grain dealer, is president of the concern.

The new concrete elevator at lower Black Rock of the Clover Leaf Milling Company of Buffalo, N. Y., is nearing completion. The elevator is 13 stories high and 45x133 feet on the ground. The plant is of concrete construction.

Ekin Bros. of Vandergrift, Pa., have just completed an addition to their grain warehouse. A belt driven corn crusher and a direct connected motor driven feed grinder for custom work has also been installed. The machinery has already been purchased.

A grain export elevator at Port Richmond wharves on the Delaware River in Philadelphia is being contemplated by the Philadelphia & Reading Ry. Company. The proposed plant will be of 3,000,000 bushels' capacity and of concrete and steel construction. The plant will be equipped with the latest facilities for treating and drying grain.

The Pneumatic Grain Elevator Company has an elevator under course of construction at Buffalo, N. Y., on the Buffalo River. The plant will have a capacity for 500,000 bushels, all of the operations to be done by pneumatic process. The above mentioned company is an auxiliary of the Clover Leaf Milling Company and one-half of the grain passing through the elevator will be used by the milling concern.

In the passing of the Union elevator at Buffalo, N. Y., the harbor entrance there loses one of the landmarks that figured extensively in the early operation of grain handling at that port. The latter part of November the work of tearing down the structure began, and it did not take long to bring it to a level with the dock. It was a wooden building of 100,000 bushels' capacity and was built in the

early 60's by David S. Bennett, who sold it to the Lackawanna Railroad Company in 1893. The Union elevator had not been worked since 1908, with the exception of two days, two years ago. Being a wooden house, the insurance was so high it could not have been operated on a paying basis, especially with the many high-class elevators located in Buffalo. The old elevator was located at the inner end of the Lackawanna trestle near the mouth of the river.

OHIO, INDIANA AND MICHIGAN

H. Firestone has erected a new elevator plant at Brewster, Ohio.

A new elevator is to be built at Elnora, Ind., by George Hackler.

Oscar Townsend has purchased the elevator plant located at Mingo, Ohio.

Castleman & Co., grain and coal dealers of Culver, Ind., have been dissolved.

The grain elevator of C. C. Bigelow at Copemish, Mich., has been completed.

The Farmers' Grain Company, operating at Hamlet, Ind., is to be dissolved.

A new grain house is to be constructed at Ashland, Ohio, by Samuel Kerling, Sr.

A grain drier is to be installed in the plant of George M. Claypool at Sardinia, Ind.

The grain elevator at Ora, Ind., has been purchased by Ira Rinehart of Rochester.

A new boiler replaces the old one in the elevator of McLellan & Morgan at Mooreland, Ind.

Rogers & Lake have opened up an 8,000-bushel elevator at Coburg (Westville p. o.), Ind.

A new elevator with a capacity of about 30,000 bushels has been constructed at Ockley, Ind.

A new elevator is under course of construction at Winamac, Ind., by J. C. Philips of Star City.

J. H. Price and others have incorporated the Griffin Elevator & Grain Company at Griffin, Ind.

At Corunna, Ind., the Farmers' Elevator Company has been organized to build and operate an elevator.

An addition of 15,000 bushels' capacity has been built to the elevator of E. M. Fisher at Needham, Ind.

For \$13,300, the People's Elevator & Supply Company of Fremont, Ohio, purchased the Wolff Elevator.

A grain elevator, feed mill and store, it is said, is to be built at Detroit, Mich., by a co-operative concern.

A drier and oats bleacher has been installed in the plant of the Wadsworth Feed Company at Warren, Ohio.

The New Harmony Grain Company has leased the elevator of J. A. Cartwright & Co., at New Harmony, Ind.

McGeorge & Son of Gladwin, Mich., have made numerous improvements on their elevator plant located there.

Announcement has been made by A. Grove of Frankfort that he will build a new elevator at Owasco, Ind.

The Columbus Elevator Company was recently incorporated at Columbus, Mich., capitalized with stock of \$5,000.

A 20,000-bushel elevator is to be constructed at Packerton, Ind., by the recently organized Farmers' Elevator Company.

The Co-operative Elevator & Milling Association has been organized at Pigeon, Mich., capitalized with stock of \$35,000.

The capital stock of the F. C. Brown Grain & Hay Company at Lowell, Ind., has been increased from \$10,000 to \$20,000.

The farmers and land owners in the vicinity of Fostoria, Ohio, have decided to organize a farmers' elevator company there.

The Waters Bros. Elevator Company of Hastings, Mich., has completed arrangements for the construction of an attrition mill, corn sheller and crusher.

The Farmers' Co-operative Grain & Merchandise Company was recently incorporated at London, Ohio, capitalized with stock of \$20,000. The incorporators of the concern are: James F. Gallagher,

Wm. Snyder, Geo. Langen, Benj. Higgins and M. W. Sullivan.

The elevator located at Collett, Ind., has been purchased from Jesse Peters by W. L. Henry of Westport, Decatur County, Ind.

The Farmers' Elevator Company of Hagerstown, Ind., has contemplated the construction of a new 20,000-bushel elevator there.

C. E. Nickols & Co., of Lowell has purchased the plant of the Dinwiddie Grain Company at Dinwiddie Station (Lowell p. o.), Ind.

Adolph Macey is the new proprietor of the elevator formerly owned by G. A. Detamore and located at Dodson (mail to Brookville), Ohio.

W. E. Rasmussen has purchased the elevators of O. D. Van Deboget & Co., at Stanton, Mich., and possession will be given next March.

Perrot & Stewart's elevator plant at Chesaning, Mich., has been purchased by the recently incorporated Farmers' Elevator Company.

The Nading Mill & Elevator Company of Shelbyville, Ind., is installing new scales and a 20-horse-power electric motor in its elevator plant.

Negotiations have been consummated resulting in the transferring of the elevator at Montpelier, Ind., from P. W. Meade and H. L. Walker of Eaton.

A large warehouse is to be constructed by the Hewitt Grain & Provision Company at Escanaba, Mich. The approximate cost of the new structure will be \$4,000.

The Home Mill & Grain Company of Mt. Vernon, Ind., is improving its elevator, making aggregate capacity 7,000 bushels. The cost of the improvements amounts to \$6,000.

The Willey-Brown Company, an elevator and milling concern of Venice, Ohio, has changed its name to the Willey Grain Company. The concern operates elevators at different Ohio stations.

Ely Stettler has sold his interest in the elevator of Stearns, Hockstetter & Stettler at Bluffton, Ohio, and in the future the plant will be conducted under the firm name of Stearns & Hockstetter.

The Sheets Elevator Company, dealers in grain, hay, millfeed and builders' supplies at Cleveland, Ohio, has made arrangements for the construction of a new brick and tile warehouse on the Erie Railroad.

F. H. Schwiebert, John Freeman, A. E. Royse, H. F. Schnabele and John C. Meyer are the organizers of the Deshler Farmers' Elevator Company of Deshler, Ohio. The capital stock of the concern amounts to \$12,000.

A grain and feed business is to be conducted at Terre Haute, Ind., by the recently incorporated B. J. Prater Company. Capital stock of \$25,000. The directors are: B. J. Prater, Emma B. Prater and Ed. Beauchamp.

A 15,000-bushel elevator recently was completed at Marco, Ind., by the Reliance Construction Company of Indianapolis, Ind., for the Farmers' Grain Company. The equipment includes a 1,000-bushel Richardson Automatic Scale.

Work has been completed by the Reliance Construction Company on the elevator at Maplewood (r. f. d. from Danville), Ind., for Edgar Thompson. The Union Iron Works of Decatur, Ill., has furnished the machinery for the plant.

It is reported that a Detroit corporation has negotiated for the property of A. K. Zinn & Co., at Battle Creek, Mich., upon which to build a large elevator. The company has also leased from the Michigan Central Railroad land adjoining the Zinn property.

At South Wanatah, Ind., the Farmers' Elevator Company has been incorporated with a capital stock of \$10,000. The company will own and operate elevators. The contract has been let to the Burrell Engineering & Construction Company for a 20,000-bushel elevator.

Capitalized with stock of \$2,000, the Dover Stock Company was organized at Dover, Ohio, to deal in grain, hay, coal, millfeeds, building materials, farm products, livestock, etc. E. C. Cody, L. R. Baldwin, P. W. James, C. D. Loveless and C. D. Hoover are the incorporators.

The controlling interest of Leroy Urmston of Indianapolis and Aubrey W. Legg of Windfall in the Windfall Grain Company of Windfall, Ind., has been disposed of to L. L. Cook and others. This corpora-

tion has a stock of \$80,000 and operates an elevator between Kokomo and Elwood.

F. D. Fairfield has purchased the elevator located at Marine City, Mich. This property was formerly owned by the defunct Richmond Elevator Company.

Negotiations were recently consummated whereby the Cottrell Bros. of Atherton, Ind., came into possession of the elevator "B" at Clinton, Ind., which was formerly the property of W. W. Wrightman. The plant is being remodeled and when work is completed will be modern in every respect.

MISSOURI, KANSAS AND NEBRASKA

John McClune has retired from the grain business at Winfield, Kan.

J. H. Berkley recently bought Adolph Kanel's plant at Hamlin, Kan.

The Southwestern Grain Company is building a plant at Hopewell, Kan.

A new elevator is being built at Oakwell, a new town near Lincoln, Kan.

A 10,000-bushel grain elevator is to be erected at Burrton, Kan., by E. Jones.

The Farmers Elevator at Midway (mail to Kanapolis), Kan., is being rebuilt.

The Millers' Grain Company situated at Ashland, Kan., is remodeling its plant.

It is rumored that a Farmers' Elevator Company will be formed at Elsberry, Mo.

A new elevator is under course of construction at La Cygne, Kan., by W. J. Dyer.

An elevator is under course of construction at Elkhart, Kan., by E. H. Fisher.

Construction work will soon be finished on the new elevator at Bridgeport, Neb.

A grain elevator is to be constructed on the farm of C. C. Cooper near Clinton, Kan.

A. D. Robinson bought the Kimmel-Ragen Elevator at Oskaloosa, Kan., for \$2,000.

The Horner elevator located at Caruthersville, Mo., has been purchased by Fred Morgan.

P. M. Anderson & Co., have sold their elevator located at Filley, Neb., to Will Parde.

New corn cribs have been built at Syracuse, Neb., by the Farmers' Company of that place.

The construction of an elevator is being contemplated at Clark, Mo., by C. E. Shock.

A grain distributor has been installed in the plant of W. D. Hollaway at Belpre, Kan.

The Farmers' Union of Athol, Kan., has decided upon erecting a new grain elevator there.

The Scott City Grain, Seed & Produce Company has started up business at Scott City, Kan.

Geo. Meader has arranged for a new 20,000-bushel elevator at Pierceville, Kinney County, Kan.

A 15,000-bushel elevator has been constructed at Clarksburg, Mo., by A. C. Yountz of Tipton.

Adolph Kenal's elevator at Hamlin, Kan., has been purchased by J. H. Berkley for \$7,000.

The Beckford Elevator has been taken over by the Utica Farmers' Grain Company of Utica, Neb.

The La Due Grain & Supply Company of La Due, Mo., has erected a 10,000-bushel elevator there.

A new 8,000-bushel elevator has been completed at Mullen, Neb., for the Mullen Grain Company.

An elevator is to be constructed at Fremont, Neb., by the Farmers' Union Co-operative Association.

A large oat clipper has been installed in the elevator of T. P. Hord Grain Company at Columbus, Neb.

At Naponee, Neb., the Equity Company has purchased an elevator to operate the same after January 1.

Electric power is now used in the elevator and mill of the Rea & Page Milling Company at Marshall, Mo.

The elevator formerly owned by D. Alberts at Fowler, Kan., has recently been purchased by W. G. Woods.

Two elevators are to be constructed at Hunter, a new town on the Salina & Northern Railroad, near Beloit, Kan.

The Sperry elevator located at Bunker Hill, Kan., has been enlarged and equipped with numerous improvements.

The interest of L. L. Coryell in the elevator at Cummings, Kan., has been disposed of by him to Burt Barber.

An addition with a capacity for 20,000 bushels is being built to the elevator plant of R. L. Miller at Mayetta, Kan.

A Richardson Automatic Scale has been installed in the plant of the Farmers Grain Company at Germantown, Neb.

The Columbus Milling Company's mill at Columbus, Kan., has been purchased by the Kelso Grain Company. It is to be used as grain elevator and the

corn grinding machinery is to be used for the manufacturing of corn chops, meal and other feed.

A new sheller and grinder has been installed in the plant of the R. & B. Company at Weston, Mo.

The Farmers' Grain & Stock Company was recently formed at Preston, Neb., capitalized with stock of \$25,000.

The State Railway Commission has given a license for a grain warehouse to the Farmers' Co-operative Company at Eldorado, Neb.

The Duff Grain Company has remodeled the grain elevator located at Wilcox, Neb., installing a man life and rebuilding the interior.

The new addition to the Page Mill & Elevator at Topeka, Kan., is nearing completion. It is to be 40x40 feet and two stories high.

A new boot, distributing spout, man lift and a chute have been installed in the elevator of the firm of Munger & Co., at Pilger, Neb.

Construction has been completed on the new reinforced concrete elevator of the Wilson Milling & Elevator Company at Wilson, Kan.

The elevator of the Rock Mill & Elevator Company at Great Bend, Kan., which was destroyed by the tornado on November 10, is being rebuilt.

At Ashland, Acres and Sitka, Kan., the Wallingford Bros. Grain Company has repurchased the elevators sold by it to C. W. Carson & Sons.

Articles of incorporation have been filed for the Farmers' Co-operative Elevator Company at Allen, Neb., with capital stock placed at \$20,000.

The fireproof elevator of 550,000 bushels' capacity has been built at Hutchinson, Kan., by the Larabee Flour Mills Company and is already in operation.

Money has been subscribed for by the Farmers' Union of Everest, Kan., for the erection of a new elevator or the purchasing of one already located there.

Capitalized with stock of \$10,000, the R. M. Thompson Company of Benson, Neb., has filed articles of incorporation for the purpose of dealing in grain.

A 35,000-bushel plant has been completed at Clyde, Kan., by the Clyde Co-operative Supply Company. The equipment includes a Western Sheller and Cleaner.

The plant of the Omaha Elevator Company of Gibbon, Neb., has been bought and is to be operated by the recently organized Grange Co-operative Elevator Company.

The steam power which furnished motive power in the elevator of the Belleville Grain & Coal Company at Belleville, Kan., has been replaced with electricity.

The W. S. Hart elevator at Allen, Neb., has been purchased by the local farmers' union from him, for \$5,000. The new owners are to take possession on July 1, 1916.

Construction work has been completed on the 30,000-bushel elevator at Kingsdown, Kan. The elevator is of modern construction and equipment and cost about \$8,000.

A motor has been installed in the elevator of the Belleville Grain & Coal Company at Belleville, Kan. The plant will in the future be operated by electricity instead of steam.

The contract has already been let for the construction of a grain elevator at Headville Station (no p. o.), Kan., for the C. E. Robinson Grain Company of Salina, Kan.

J. S. Wahl, Fred Morgan and J. A. Cunningham have organized the Planters' Grain, Elevator, Mule & Feed Company at Caruthersville, Mo. The capital stock of the concern is \$12,000.

A reinforced concrete elevator, consisting of two tanks and four bins and with an aggregate capacity of 25,000 bushels, has been constructed at Yocemento, Kan., by W. G. Madden of Hays.

If present plans materialize the 20,000-bushel elevator plant of the Peterson Grain Company at Penokee, Kan., will be ready for operation by January 1. L. O. Peterson is to be manager.

A concrete storage elevator of 250,000 bushels' capacity is nearing completion at Hays, Kan., for the Hays City Milling & Elevator Company. This will give the firm an aggregate storage capacity of 800,000 bushels.

A co-operative elevator company has been formed at Rolla, Kan., with Elva Stout as president; H. C. Showers as secretary, and F. D. Stout as treasurer. The company will operate as the Farmers' & Merchants' Co-operative Association.

Four additional tanks were built to the Burlington Public Elevator at St. Joseph, Mo. The capacity of the plant now reaches 500,000 bushels. The construction work was done by the Burrell Engineering & Construction Company of Chicago.

At Wichita, Kan., the Smith Elevator Company has been organized by W. W. Smith, W. R. Smith and G. C. Adams. They have purchased membership

on the Wichita Board of Trade and bought the elevator on the Missouri Pacific & West Wichita.

The installation of automatic scales, cleaners and other new machinery is being planted by the Agra Grain Shipping & Mercantile Company of Agra, Kan.

A manlift and an automatic scale have been installed in the plant of the Farmers' Grain Company of Georgetown, Neb. The firm also made general repairs on the entire plant.

ILLINOIS

A grain office has been opened up at Urbana, Ill., by A. A. Shiveley.

Baldock & Clausen's elevator plant at Alden, Ill., is nearly completed.

At Symerton, Ill., the Farmers' Elevator Company has been organized.

The elevator at Westervelt, Ill., has been repurchased by G. G. Bartscht.

The Loxa Grain Company of Loxa, Ill., has sold its elevator to C. W. Wheatley.

C. H. Wade is installing a 25-horsepower gasoline engine in his plant at Paris, Ill.

Foebr Bros. have come into possession of the elevator of Atling & Baldrige at Ashley, Ill.

A new car loader has been installed in the plant of the Hudson Grain Company at Hudson, Ill.

A new wooden approach has been built to the elevator of Risser-Rollins Company at Tucker, Ill.

The grain and feed business at Galesburg, Ill., has recently been taken over by Clyde Morley.

The DeWitt Grain Company of Plymouth, Ill., has disposed of its elevator plant located there to Wm. Cox.

Arrangements have been made by Dan Q. Webster of Monmouth, Ill., for the installation of a grain tester.

A large lumber shed is under course of construction at New Milford, Ill., by the Neola Elevator Company.

A new elevator is to be built at Bonfield, Ill., by Eugene Smith to take the place of the one burned on October 8.

A new wagon dump has been installed in the grain elevator of the Farmers' Grain & Coal Company at Flanagan, Ill.

The Granger Elevator Company operating at Manito, Ill., has made several needed repairs on its elevator recently.

The elevator of the Herron Bros. at Bryce (mail Milford), Ill., was bought not long ago by the Farmers' Grain Company.

At Waverly, Ill., the McCarty Farmers' Elevator Company has been formed, capitalized with stock amounting to \$7,000.

The Litchfield Mill & Elevator Companys at Waggoner, Thomasville and Zanesville, Ill., have been leased by M. J. Buscher.

Ed and Theodore Hendrix have purchased the elevator of W. T. Lane located at Clinton, Ill. The consideration was \$7,500.

A new concrete approach, costing about \$900, has been built to the elevator of the Farmers' Elevator Company at Danforth, Ill.

The business formerly operated by the Donovan Lumber Company at Donovan, Ill., has been bought by the Donovan Grain Company.

H. M. Freeman Grain Company of Indianapolis, Ind., has purchased the elevator plant of F. C. Brown at Illinois Station (Momence p. o.), Ill.

The construction of a grain elevator at Croft Station (Fancy Prairie p. o.), Ill., is contemplated by the Middletown Grain & Coal Company.

The Armour Grain Company's property at Leland, Ill., has been bought by E. H. Farley, who leased the elevator to the Farmers' Elevator Company.

For the purpose of dealing in grain, coal, etc., the Hurlburt Co-operative Company was organized at Elkhart, Ill., with a capital stock amounting to \$5,000.

A new office is to be built and numerous improvements made to the elevator at De Kalb, Ill., recently purchased by the Wakefield Grain Company from C. S. Hunt.

James E. Bennett & Co., grain dealers and commission men at Jacksonville, Ill., have leased larger and more convenient quarters in the Ayers Bank Building.

The new 100,000-bushel elevator at Harvard, Ill., the property of D. Hereley & Sons, has been completed. An elevator leg, manufactured by the Weller Manufacturing Company of Chicago, is included in the equipment.

The Farmers' Elevator Company has decided upon the erection of a co-operative elevator at Kewanee, Ill., similar to that in operation at Neponset. The building is to be 34x34 feet and rise to a height of

65 feet. The plant will be covered with sheet iron and have a capacity of about 10,000 bushels of grain.

The farmers at Monmouth, Ill., have organized recently into the Farmers' Grain Elevator Company. Stock to the amount of \$9,900 has been subscribed to.

C. A. Wylie had at first planned to build a grain elevator at Kewanee, Ill., this fall, but has recently revised his plans and will not build there until in the spring.

The contract has been let by Frank Supple of Bloomington, Ill., for the construction of a grain elevator at Rumpier, a station on the Big Four two miles east of Ogden.

Capitalized with stock of \$5,400, the Colchester Elevator Company was recently formed at Colchester, Ill., by George M. Zimmerman, Chas. W. Welch and William Murray.

At Bloomington, Ill., the J. A. Harrison Company has been organized with stock of \$40,000 by J. A. Harrison, A. Brooks and others. The company will own and conduct a grain elevator.

A new scale and scale room is being constructed at Hartsburg, Ill., for the Hartsburg Grain & Lumber Company. The scales are to be installed on a site west of the I. C. R. R. tracks.

J. A. McCreary & Son of Mason City, Ill., have placed their contract with the Burrell Engineering & Construction Company for a new 10,000-bushel capacity cribbed elevator at Croft, Ill.

Frank Dennerberger, J. F. Moeller, Clarke Stevenson and Clyde R. Richardson are the incorporators of the Orleans Farmers' Grain Company of Orleans, Ill. The company is capitalized with stock aggregating \$8,000.

The Tri-City Elevator Company has been incorporated at East St. Louis, Ill., with a capital stock amounting to \$25,000. The organizers of the concern are: Edward M. Flesh, Joseph J. Fischer and Clifford H. Albers.

Rumsey & Co., of Chicago, are the purchasers of the Lincoln Grain Company business located in the state of Illinois. The sales include that of two elevators at Lincoln, one at Lawndale, one at Broadwell and corn cribs at Wittkopf Station.

Dr. John C. Maxwell has formed a partnership with Will P. Quinleven at Sterling, Ill., to conduct a cash grain business. The firm is in partnership with Harris, Winthrop & Co., of Chicago and have a membership in the Chicago Board of Trade.

The Bonfield Grain & Lumber Company of Bonfield, Ill., has broken ground for a 15,000-bushel capacity addition to their grain storage. It will be in the form of circular wood tanks and the Burrell Engineering & Construction Company has the contract for the work.

The farmers' elevator at Darrow (mail to Stockland), Ill., is to be rebuilt on a larger scale according to late arrangements made. The plant recently burned but was fully covered by insurance. The contract has been let to the Burrell Engineering & Construction Company.

A grain elevator and grist mill is to be established at Decatur, Ill., by the recently organized Fornax Milling Company. Incorporators of the firm are: Henry H. Bremerkamp, Clarence G. Strickler and Harmon M. Gillig. The capital stock of the concern amounts to \$10,000.

IOWA

H. W. Kester has engaged in the grain business at Lovilia, Iowa.

The new Sandwich elevator at Maple River, Iowa, is the property of Chas. Irlbeck.

McCaull-Webster Elevator Company of Hornick, Iowa, has sold its elevator at that place to Fred Haitz.

J. H. Pringle and Elmer Houser have bought the elevator of H. W. Kester located at Bussey, Iowa, from him.

For the purpose of dealing in grain, the B. S. Daley Supply Company has been formed at Centerville, Iowa.

The elevator plant of the Tingley Elevator Company at Tingley, Iowa, has been purchased by Gordon Gaver of Clarion.

W. M. Blair Lumber Company of Ewart, Iowa, has been succeeded in the grain and lumber business by Kearney Bros.

The elevator property on the Rock Island at Rowan, Iowa, has been purchased from Azeltine Bros., by Roy Fitz and Chas. Utz.

The lumber yard property and stock of C. L. Hartinger at Collins, Iowa, has been disposed of by him to the Neola Elevator Company.

Construction work has been started on the new elevator of Noble & Reid at Hamburg, Iowa, to replace the plant burned on October 30. The plant is to be of fireproof construction.

The elevator plant located at West Liberty, Iowa, has been purchased by Thomas E. Fountain from W. C. Addleman. Mr. Fountain is an experienced ele-

vator and grain man and has already taken control of the plant.

The Farmers' Elevator Company of Hanlontown, Iowa, has planned the construction of a new flour and feed house. It is to be 20x40x10 feet and built of cement blocks.

A new 10-horsepower electric motor has been installed in the elevator plant of J. J. Grosenbaugh at Coon Rapids, Iowa. Electric lights have also been installed in the office and main building.

Incorporation papers have been filed at Sioux City, Iowa, for the C. J. Milligan Company, placing the capital stock of the concern at \$50,000. The president and treasurer of the firm is C. J. Milligan; vice-president, H. W. Duggan; secretary, C. H. Nurse. The company will conduct a general feed, grain and hay business.

SOUTHERN AND SOUTHWESTERN

C. D. Wood has erected at Holdenville, Okla., a grain elevator.

An elevator and mill is to be built at Little Rock, Ark., by Geo. Niemeyer.

At Traber (mail to Miami), Okla., Ethon Venis has entered the grain and hay industry.

The W. P. Wilson Grain Company's plant at Nacogdoches, Texas, has been completed.

The Newcastle Elevator Company of Newcastle, Texas, has completed a new elevator there.

The Dazey-Moore Grain Company of Fort Worth, Texas, has established an office at Enid, Okla.

Great interest is being taken in the probable erection of a grain elevator and feed mill at Memphis, Tenn.

The Land Milling Company of Texarkana, Ark., has made plans for the reconstruction of the elevator which burned.

The Clell Coleman has bought the interest of Glover Kyle in the Cogar Grain & Coal Company at Harrodsburg, Ky.

Bolin-Hall Grain Company, operating at Liberal, Kan., has arranged for the erection of a new elevator at Beaver, Okla.

Alex Walker has sold his grain warehouse together with contents at Lancaster, Ky., to W. B. Lee and John Hicks for \$45,000.

The elevator which burned at Amorita, Okla., not long ago, has been replaced by a 14,000-bushel plant by the Farmers' Federation.

L. F. Jones has sold out his interest in Wheat & Jones, grain and feed company, of Memphis, Texas, to his partner, W. L. Wheat.

The Webster Company, a grain firm, of San Antonio, Texas, expects to build a small handling house for transferring and clipping oats.

A large warehouse and a 50,000-bushel elevator is to be constructed at Sallisaw, Okla., by the Western Grain Company of Ft. Smith, Ark.

Moore & Forehand is the new name of the concern operating an elevator at Pauls Valley, Okla., formerly known as the Moore Elevator Company.

At Columbus, S. C., the Jordan Grain & Produce Company has been organized capitalized with \$2,500. J. N. Jordan and T. L. Brice have petitioned for charter.

G. O. Moore of Oklahoma City and C. B. Cozart and W. A. Gwinn of Woodward, Okla., have filed articles of incorporation as the Cozart Grain & Elevator Company at Oklahoma City, Okla. The capital stock aggregates \$5,000. The old Capitol elevator site at Woodward, Okla., has been leased by the Cozart Grain Company to be used for storage purposes.

At Garland, Texas, a new farmers' elevator company has been formed to build a grain elevator of 50,000 bushels' capacity and costing \$15,000. The officers of the concern are: President, F. W. White; vice-president, A. R. Davis; secretary and treasurer, Z. S. Armstrong, with the following directors: R. L. Reagan, G. C. Davis, Val Coldercree and A. F. Anderson.

At Asheville, N. C., the Asheville Packing Company has been granted permission to operate a wholesale and retail grain, feed, hay and grocery business. The firm is authorized to begin business as soon as \$5,000 of the authorized capital stock of \$25,000 is paid in. The incorporators include: C. T. O'Farrell of Florence, S. C.; Marcus Erwin, Morris Myers, X. B. Lange, W. R. Patterson and Edwin McKay.

Joseph F. Durham recently purchased an elevator at Mobile, Ala., from the Mobile & Ohio Road, and planned to organize operating company. He contemplates making repairs costing \$40,000. New electric machinery is to be installed. The three 1,000-bushel Fairbanks Hopper Scales; new car mover; 3 new power shovels, one opposite each of three elevators; overhauling conveyor, 650 feet long; Hess dryer; 48-inch tubular boiler trolley spouts; marine loading steel spouts, with pulleys and tackle; spouting on track floor of elevator;

trippers and the 11 motors are included in the plants for overhauling.

At Dallas, Texas, the Edmundson-Ford Grain Company has been organized with stock of \$20,000. W. L. Edmundson, H. H. Ford and E. C. Ford are the incorporators.

The Board of Commission of Port of New Orleans, La., will receive proposals for the erection of the 1,000,000 bushel elevator there until January 5, 1916. The contract has already been let for the grain elevator wharf, to cost \$188,000, and to be 1,350 feet long and 12 feet wide.

CANADIAN

J. E. Roxburgh has completed arrangements for a new elevator at Norwood, Ont.

The Burrard Grain Company of Daysland, Alta., will build a grain elevator costing \$6,000.

Contracts have been let for two 30,000-bushel elevators at Phone Hill, Sask., and Willbrook, by Peaker Bros.

A \$10,000 grain elevator is under course of construction at Ryerson, Sask., by the Saskatchewan Co-operative Elevator Company.

It is rumored that the Canadian Government may establish or make means for the establishment of a grain elevator at Eriksdale, Man.

The new 40,000-bushel elevator of the National Elevator Company at Port Arthur, Ont., is being completed. It is of frame construction covered with galvanized iron.

WESTERN

A third elevator is now under course of construction at Ismay, Mont.

A 50,000-bushel grain elevator is to be erected at Yuma, Colo., by Miller & Co.

Construction work has been started on the 100,000-bushel elevator at Ravalli, Mont.

A 7,000-bushel elevator was recently completed for the Wilson Company at Roy, N. M.

The elevator located at Genesee, Idaho, has been enlarged by the C. E. Wood Company.

A new elevator has been built at Iona, Idaho, by the Western Milling & Elevator Company.

It is assured that a grain elevator is to be constructed at Hathaway, Mont., in the spring.

The elevator and flour mill at Three Forks, Mont., was completed the later part of November.

A new elevator plant has been built at Ollie, Mont., by the Equity Elevator Company of Westmore.

At Fairview, Mont., the Farmers' Co-operative and the Farmers' Elevator Companies have been consolidated.

A granary capable of holding 12,000 bushels has been built at Point of Rocks, Wyo., by A. Gardner and S. Curtis.

The capacity of the elevator and mill of the Nampa Mill & Elevator Company at Nampa, Idaho, has been increased.

A grain chopper has been installed in the elevator of the American Forks Co-operative Company at American Fork, Utah.

The Lewistown Milling Company of Vollmer, Idaho, has arranged for the construction of a grain warehouse, 60x186 feet.

J. J. Berry has installed a weighing station at French, N. M., and has arranged for the construction of a large grain elevator.

Either a concrete or frame elevator will be constructed at Burlington, Colo., by the Burlington Equity Exchange of that place.

The business of the Farmers' Elevator Company at Bynum and Bole, Mont., has been sold to the Gallatin Valley Milling Company.

The Wood-Rowell Company has been organized at Great Falls, Mont., to deal in grain. The concern is capitalized with stock of \$3,000.

The elevator of the Idaho Milling & Feed Company at Caldwell, Idaho, has been completed. The plant has a capacity of 20,000 bushels.

A large fireproof building is to be constructed at Auburn, Cal., by a Mr. Neithrope. The building will be utilized by him for a grain, feed and produce store.

The Burrell Engineering & Construction Company has completed a new 30,000-bushel elevator at Longmont, Colo., for the Farmers' Co-operative Elevator & Supply Company.

The grain, feed and coal business of Marmaduke & Clutter at Pueblo, Colo., was recently turned over to Edward Heiman. He will continue operating the business as was done previous to the sale.

The contract has been let for the erection of the grain elevator at Astoria, Ore. The specifications call for a wooden structure, 56x70 feet and 120 feet high. Approximately 700,000 feet of lumber will be used. The plant is to have a capacity of about 100,-

000 bushels and be ready for occupancy 75 days after the awarding of the contract.

The Greely-Schmidt Elevator Company of Fort Benton, Mont., has decided upon the erection of another grain elevator there. The contract was let and the plant was ready for operation by December 1.

At Hysham, Mont., a new farmers' elevator company has been formed, capitalized with stock of \$25,000. Directors Geo. S. Warren, W. S. Gardner and W. G. Cooley of Hysham, W. P. Todd of Billings and A. Olsen of Myers.

A company of which L. R. Rolfe is president has built a 35,000-bushel elevator plant at Ekalaka, Mont., together with a 60-barrel flouring mill and warehouse, 30x80 feet. The company has also built an engine room and office building and installing a 50-horsepower oil engine.

THE DAKOTAS

The elevator at Dale, N. D., is now the property of T. B. C. Evans.

Claus Strand recently purchased a large grain elevator located at Mandan, N. D.

The South Dakota Grain Company has made plans for a new elevator at Marion, S. D.

The Equity Trading Company of Alta, N. D., has completed a new elevator of 50,000 bushels' capacity.

New scales have been installed in the new plant of the Farmers Elevator Company at Wentworth, S. D.

The Britton Milling Company is interested in the construction of a 20,000-bushel elevator at Britton, S. D.

McGray & Kjelstrup Elevator Company of Underwood, N. D., is succeeded by the Kellogg-Commission Company.

A large and improved grain cleaner has been installed in the plant of the Farmers' Equity Exchange at Forbes, N. D.

A farmers' elevator is to be constructed at Zenith, N. D., by L. F. Wheeler. The plant has a capacity of 5,000 bushels.

The old Farmers' elevator located at East Fairview, mail Cartwright, N. D., has been opened up by Ben L. Hardaway.

The recently organized Equity Society at Killdeer, N. D., has purchased the Winter-Truesdell-Ames elevator located there.

The Farmers' Elevator Company of Yale, S. D., has construction work started on the 30,000-bushel elevator at that place.

The Farmers' Elevator Company of Guelph, N. D., has purchased the Marshall-McCartney elevator and will take possession early next summer.

The 40,000-bushel elevator at Park River, N. D., the property of the Lybeck Grain Company, is being torn down to be rebuilt at Marston (p. o. Pettibone).

An automatic scale, grain cleaner, manlift and gas engine has been installed in the plant of the Farmers' Elevator Company at Steele, N. D.

Work has been completed on the new elevator owned and operated by the Ryder Independent Grain Company at Ryder, N. D. The plant has a capacity of about 34,000 bushels.

The Madison Farmers Co-operative Elevator Company of Madison, S. D., has taken up \$15,000 of its \$25,000 capital stock. The company intends, it is said, to put in a lumber yard.

Lucius B. Judson, Howard H. Pinney, Guy Bailey and others are the organizers of the Farmers' Elevator Company at New Underwood, S. D. The company's capital stock aggregates \$5,000.

Articles of incorporation have been filed by the Roslyn Farmers' Elevator Company at Roslyn, S. D. The capitalized stock of the concern amounts to \$25,000. The directors of the company are: John Reed, O. O. Floren, Peter Lardy, E. A. Schullian, A. Skaaden, A. E. Hemmah and J. G. Johnson.

MINNESOTA AND WISCONSIN

E. E. Logeson has retired from the grain business at Danvers, Minn.

Mr. Blankenberg has purchased the Newdall Bros' elevator at Cobden, Minn.

A new elevator is under course of construction at Owen, Wis., by E. J. Crane.

The Western Elevator located at Fairmont, Minn., has been purchased by L. J. Frase.

The new elevator plant at Henderson, Minn., has been completed and put into operation.

The Monarch Elevator at Muskoda, Minn., has been purchased by T. P. C. Evans of Hawley.

A 30,000-bushel elevator has been completed at Tenney, Minn., by the Osburn-McMillen Elevator Company.

H. B. Greeley, W. E. Ward, Horace Wishart, M. J. Mullin, Wesley H. Ward, Geo. H. Greeley, E. L. Ward, Chas. Cramer and Chas. Jones are the organizers of the Equity Elevator Company of Mapleton

Minn., recently incorporated there with stock of \$25,000.

The Maguire Hay & Grain Company of Chippewa Falls has leased the Niebuhr & Son's elevator at Fall Creek, Wis.

The farmers in the vicinity of Waubun, Minn., are discussing the advisability of establishing a grain elevator there.

At Rhinelander, Wis., the Oneida Grain Company was recently incorporated capitalized with stock of \$10,000. The incorporators of the firm were: C. C. Ladd, G. D. Williams and E. H. Rogers.

It is said that the P. V. elevator located at Kasota, Minn., is to be remodeled and started into operation again. An electric motor is to be installed and plant is to be used as cleaning house.

A manufacturing plant is to be constructed on the site of the Northwestern Elevator at St. Paul, Minn., which burned down recently. Another site for the elevator is to be selected and the construction work started early next year.

The Barnett & Record Company, of Minneapolis, has been awarded the contract for the erection of a 1,750,000-bushel grain elevator addition to the Capitol Elevator Company's Duluth storage plant. The new structure must, according to the contract, be ready for operation by September 1, 1916. The new

plant will double the present capacity of the Capitol elevator. It will be of reinforced concrete construction and will cost about \$700,000.

Bartlett-Frazier Company has bought the big terminal elevator at Manitowoc, Wis., operated by the Western Elevator Company.

For the purpose of conducting a general elevator business, the Benson Mill Elevator Company has been incorporated at Benson, Minn. The elevator and flour mill have already been secured by the concern with L. A. Larson as manager.

At Clintonville, Wis., the Cargill Grain Company has completed a new up-to-date elevator there. The new structure is 26x32x50 feet and contains 10 large bins. Connected with this is a warehouse 30x60 feet and a 20x50 foot lime house with coal shed.

The Milwaukee Grain & Feed Company of Milwaukee, Wis., has arranged for the construction of a molasses feed plant. The structure is of reinforced concrete and brick and will measure 125x41 feet by three stories high. The plant will cost about \$25,000.

Announcement was recently made that the Gould Grain Company has leased the 250,000-bushel elevator "F" owned by the Northwestern Railway Company and located at Winona, Minn. The elevator formerly was used by the Western Elevator Company, but since the dissolution of this concern two months ago, the elevator has not been used.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

AGENCY FOR AMERICAN ELEVATOR MACHINERY

Editor American Grain Trade: I am anxious to secure the sole agency rights in this country (Argentina) for machinery and accessories (belting, conveyors, cleaners, etc.) used in connection with grain elevators. I want to deal only with first-class people whose articles are recognized as being really good. There is a considerable trade to be done here and it will increase largely as time goes on.

Yours faithfully, F. de C. M. HERIOT.
25 de Mayo 158, Buenos Aires, Argentina.

THE QUESTION OF INFALLIBILITY

Editor American Grain Trade: In your November issue, page 329, under the caption "A Human Weakness" you say: "The claim to infallibility is confined to a single gentleman in Rome. The rest of us are heir to errors in judgment, particularly when our own interests are involved." The inference here is that the "gentleman in Rome" claims infallibility in the everyday affairs of life. May I be permitted to suggest to you that the doctrine of infallibility as held in the Catholic Church means, "The supernatural prerogative by which the Church of Christ is, by a special Divine assistance, preserved from liability to error in her definitive dogmatic teaching regarding matters of faith and morals." (Cath. Ency. Subject: *Infallibility*.)

The "gentleman in Rome" would be as liable to err in the arbitration of a trade difference between grain dealers as any one else.

Yours truly, J. J. FITZGERALD,
Omaha, Neb. Gr. Dealers Nat. Mut. Fire Ins. Co.

DODGING THE NEBRASKA WAREHOUSE LAW

Editor American Grain Trade: The Nebraska State Railway Commission has been called upon again to decide the question of what a public warehouse for the storage of grain really is in the light of the compulsory public warehouse law passed by the last legislature.

Elevators are constantly devising plans whereby they can store grain and not have to comply with the law and become public warehouses and to endure the restrictions imposed by that act. In this instance the Van Winkle Grain Company, a line elevator concern, has made contracts with producers to purchase their grain, pay for it on an agreed date in the future at the market price of that date, and deduct $\frac{3}{4}$ cent per bushel for storage. The Commission decides that this is a bonafide purchase by the dealer and he is storing only his own grain.

By this plan it is not necessary for the elevator company to make regular reports to the Railway Commission, nor to put up a bond, nor to charge the regulation storage rate of 1½ cents for the first 15 days and 1-30th of a cent per day thereafter.

This law has not been widely observed. In one way and another most grain companies have dodged its provisions. As originally intended the law would have been optional but it got away from its sponsors in the legislature and as enacted was more sweeping in its provisions.

Yours truly, T. A. BROWNE.
Lincoln, Neb.

THE CANADIAN SITUATION

Editor American Grain Trade: At conferences which took place December 1 between members of the Government and representatives of the milling and grain shipping interests, arrangements were made which will obviate the difficulty apprehended by these interests following action of the Government in commandeering all high grades of wheat in store at elevators in the East and the Head of the Lakes.

The needs of the milling industry will be met by a loan of such portion of the commandeered wheat as is necessary to meet immediate demands. The wheat so loaned will be replaced by the borrowers within a specified period in the same quantities and grades as are taken out. The amount affected by this arrangement has not been stated.

The grain shipping interests were represented by Messrs. A. T. Stewart, James Carruthers, and Norcross of Montreal who held a lengthy conference with Hon. Arthur Meighen and Sir George Foster in the latter's office. The arrangement made with the shippers is on much the same basis as that entered into with the millers except that a much larger quantity of grain is affected. The arrangement takes care of actual bonafide contracts, an estimate of which was placed before the Government. The withdrawal of the wheat affected by these arrangements will mean a considerable saving to the Government in storage and interest charges, etc. In each case the borrowed grain is to be replaced at the prices which the Government is paying.

It is expected that millers and shippers will be able to purchase sufficient grain to repay the Government without loss to themselves as December wheat is not affected by the enhancement of prices. These arrangements are said to be satisfactory to both the milling and shipping interests who are thus protected in their contract obligations. Following the completion of the understanding with the shipping representatives the question of transportation was taken up and the aid of the shippers enlisted in the interests of speedy movement of the grain. It is expected that every assistance will be given to this end by the Imperial authorities.

It was announced by the Government that approximately 3,000,000 bushels of wheat had already left the elevators in fulfillment of the order placed here on behalf of the Allies. The question of financing the purchase of the wheat is now being worked out. The Canadian Government will buy the wheat and repayment will be made by the Imperial authorities. Practically all the grain involved is already being carried by the various banks and this arrangement will continue in effect.

Yours truly, ROBSON BLACK.
Ottawa, Can.

ASSOCIATIONS

MISSOURI OFFICERS CHANGE

William D. Schmidt, formerly vice-president of the Missouri Grain Dealers' Association, has succeeded President James D. Mann, whose death was recorded in our last issue. Mr. Schmidt resides at Appleton City and has taken hold of the executive affairs of the Association in a manner to warrant the prediction of an active administration.

MICHIGAN DEALERS PLANNING MEETING

Secretary John C. Graham of the Michigan Hay & Grain Association announces that the midwinter meeting will be held on February 3, at Saginaw. Plans are already under way to make the sessions of more than usual interest and value, and the Saginaw dealers have an enviable reputation as entertainers. Full announcement of the program and entertainment will be made later.

INDIANA DEALERS' DIRECTORY ISSUED

The 1914 Directory of the Indiana Grain Dealers and Millers is fresh from the press, all matter being brought down to December 1. The book is the most complete that has appeared and is a valuable adjunct to the trade in that state. It is a book of 144 pages, a profitable display of advertising facing alternate reading pages. It is well-indexed and well arranged, and Secretary Riley is to be congratulated on its appearance.

A meeting of the Board of Directors has been called for the purpose of discussing plans for the semi-annual meeting which will be held in January.

TEXAS GRAIN DEALERS VICTORIOUS

In a conference between the shippers, the railroads and the elevator interests at Galveston, Secretary H. B. Dorsey of the Texas Grain Dealers' Association carried the day by having the inspection rules of that port changed so that grain will be inspected upon arrival instead of having to wait until discharged at an elevator.

The matter of adjusting losses caused by the flood was also taken up, but the railroads, pleading the damage was "by act of God," which relieved them of responsibility, refused to make any reparation. The roads, however, have put in force a low rate for salvage grain to Northern points, so that much of the damaged wheat can be used at feeding centers.

MEETING OF OHIO GRAIN DEALERS AT COLUMBUS

The fall meeting of the Ohio Grain Dealers Association was held at Columbus, November 16, with an average attendance. President John Wickenhiser of Toledo presided at both morning and afternoon sessions. The fall meeting is held, principally to discuss the condition and earliest time for moving the new corn crop. This subject was fully considered and other matters were taken up such as the contemplation on the part of the railroads to increase the minimum weights on carload shipments of grain, and sulphuring oats.

H. L. Goemann gave the following compromise minimum which he planned to submit to the railroads and felt certain the grain trade could secure their adoption: wheat 64,500 pounds; corn, 64,400 pounds; oats, 51,200 pounds; barley, 62,400 pounds; barley and oats, 51,200 pounds; rye, 64,400 pounds.

Following the morning session the grain dealers and millers of Columbus gave the usual luncheon to the visiting grain men at the Virginia hotel. Fully 150 or more enjoyed the hospitality of the Columbus hosts.

FEED CONTROL OFFICIALS ELECT

The annual meeting of the Association of Feed Control officials of the United States was held in Washington, D. C., November 18, 19. It was one of the most important meetings ever held as a number of definitions of various feeds were adopted permanently, and the feed situation may well be said to be placed on a stable basis. The tentative definitions suggested last year for oil meal, old process oil meal, new process oil meal, linseed meal, unscreened flaxseed oil feed, ingredients of unscreened flaxseed oil feed and screenings oil feed were adopted.

Many valuable papers were read, on "Corn Acidity," on "Feeding Beef Cattle," "Clipped Oats By Products," and others. The election of officers resulted as follows: Dr. R. E. Stallings, Georgia, president; Dr. S. K. Johnson, Ohio, vice-president; P. H. Smith, Massachusetts, secretary-treasurer.

Executive Committee: J. W. Kellogg, Pennsylvania; Dr. J. K. Haywood, U. S. Department of Agriculture; W. J. Jones, Jr., Indiana. Resolutions of thanks were passed for the efficient services of retiring Secretary L. A. Fitz, who was prevented from attending the meeting by the arrival in his household of a new daughter.

KANSAS TO CHANGE DATE OF MEETING

A post card vote by the members of the Kansas Grain Dealers' Association showed 135 votes for holding the meeting in May, and 65 for February. The Board of Directors appoints the time and place of meeting, but the vote will be referred to them and unless some urgent reason appears, the wish of the majority will govern their decision.

Secretary Smiley announces the following new members: Joseph Hartter, Berwick; Lost Springs Elevator Company, Lost Springs; John Westerman, Selden; St. Francis Equity Exchange, St. Francis; George F. Hancock, Paradise; Peterson Grain Company, Penokee; Farmers Co-operative M. & M. Association, Lucas; Farmers Co-operative Merc. Association, Vesper; Tasco Grain Company, Guy; F. D. Walters, Studley; Farmers Union Co-operative S. & B. Association, Bogue.

Returns show a reduction of winter wheat acreage of about 20 per cent in Kansas, or 1,900,000 acres. On November 1, 37 per cent of the wheat crop had passed out of farmers' hands.

ILLINOIS DIRECTORS HOLD MEETING

On December 2, the directors of the Illinois Grain Dealers' Association held a meeting in Chicago, and the session lasted for about six hours. A long docket was presented for consideration by Secretary Hiscock and several matters of importance were disposed of.

Chicago, Bloomington and Decatur made bids for the annual meeting, the claims of the latter city being strongest in the estimation of the directors, Decatur not having had the meeting in several years. The hotel accommodations of the city have improved greatly and a record meeting can be taken care of during the second week in May.

Two amendments of the by-laws received the approval of the directors and will be presented to the members for vote at Decatur. One eliminates the assessment for dues for \$1 for each branch officer or elevator, so that each member will pay the same dues, \$10. The second amendment makes honorary members, ex-presidents of the Association, who shall not be charged dues or assessments.

The Association joined the Chamber of Commerce of the United States, the first grain association to do so. Balance in the treasury is \$1,129.82, this will be augmented considerably when the directory of the Association is issued in January.

NATIONAL HAY ASSOCIATION ACTIVE

Since the annual report of the National Hay Association was published the following new members have been received: Kendrick-Randall Company, Inc., Browns, Ala.; Randall Bros., Marion Junction, Ala.; Milne & Glennie Company, Galt, Ont.; Lamar Alfalfa Milling Company, Lamar, Colo.; C. M. Lewis Company, E. A. Martin Seed Company, J. G. Permenter Company, and the Southern Grocery Company, all of Jacksonville, Fla.; J. P. Brennan, Tampa, Fla.; T. H. Brooke & Co., Atlanta, Ga.; Walter E. Davis, Savannah, Ga.; Nicholas Crickmore, Sheldon, Ind.; W. L. Holdaway, Terre Haute, Ind.; J. H. Sanders, Salamonia, Ind.; J. K. Hoagland & Co., Clarksburg, Ill.; C. A. Austin, Eldorado, Kan.; J. P. Fisher, Council Grove, Kan.; J. C. Schautz, Winfield, Kan.; James B. Leach & Co., Mt. Morris, Mich.; W. H. Van Slice, Owosso, Mich.; Manager Publishing Company, Minneapolis; O'Brien Mercantile Company, Brainerd, Minn.; Adams & Neubert, Okolona, Miss.; W. T. Donaldson, Strong's, Miss.; N. D. Guerry, Artesia, Miss.; W. S. Lenoir, Prairie, Miss.; J. C. McConnell, Columbus, Miss.; Walker & Gerks, Rochester, N. Y.; Austin, Heaton Company, Durham, N. C.; E. G. Hines, Goldsboro, N. C.; James T. Metts, Wilmington, N. C.; Joseph H. Watters, Wilmington, N. C.; J. H. Breniser, Bolivar, Ohio; G. Edgar Johns, Martins Ferry, Ohio; Rider & Miller, Bucyrus, Ohio; Alfalfa Growers' Association, Lamont, Okla.; John Bose, Bessie, Okla.; Cherokee Grain Company, Oklahoma City; W. S. Stuart, Carlisle, Pa.; Kaiser Bros. and Lackey Bros. of Knoxville, Tenn.; J. B. Brewer, Danville, Va.; Brookneal Feed & Seed Company, Brookneal, Va.; W. V. Conard, Inspector, Newport News, Va.; Newman Hay & Grain Company, Newport News,

Va.; Virginia Feed & Seed Company, Lynchburg, Va.; L. E. Lichford, Richmond, Va.; Hannah & Dudley, Danville, Va.; N. R. Savage & Son, Richmond, Va.; Standard Fuel & Supply Company, Bluefield, W. Va.; M. H. Smith, Basin, Wyo.; C. M. Castle, Lake View, Ohio.

Bulletin No. 4, which may be obtained from Secretary J. Vining Taylor, Winchester, Ind., contains the reports from the various state vice-presidents who tell of hay conditions in their respective territories. This report is of great value but is unfortunately too lengthy to be published in this column.

Ireton Bros. & Eikenbary Company, of Van Wert, Ohio, have been suspended.

MIAMI VALLEY GRAIN DEALERS MEET

The Miami Valley Grain Dealers' Association met at the Hotel Wagner, Sidney, Ohio, Friday evening, December 3, to discuss the handling of new corn, also their experiences with wheat and oats crops of this year.

The meeting was proceeded by a banquet given by the Association, after which the meeting was called to order by the President, Fred Russell, of Sidney, Ohio. O. W. Cook of Maplewood, read a paper upon the principles of the Association and its results. E. T. Custenborder, of Sidney, opened a discussion with a strong plea for better handling of grain and publicity, which would show the farmer that the aim of the Association was co-operative and not antagonistic.

The question of the result of handling the new oats was opened with a discussion by J. E. Wells of Quincy, followed by several other dealers. The general report was that all of them had paid more for this oats than they should, from the fact that there were so many of the off grade kind, and as a whole the elevators had made no money on them.

Mr. J. W. Simmons of Pemberton opened the discussion of taking in new corn and it was decided to hold off the receipts as long as possible, because the corn contains so much moisture and it is in an unsafe condition to handle.

Mr. George Stephenson of Rosewood, the "Billy Sunday" of the organization, made a strong plea for fairness, not only in dealing with the farmer but in the handling and shipping of the grain as well, and that receivers should pay premium for better grade as well as discounting the lower grades.

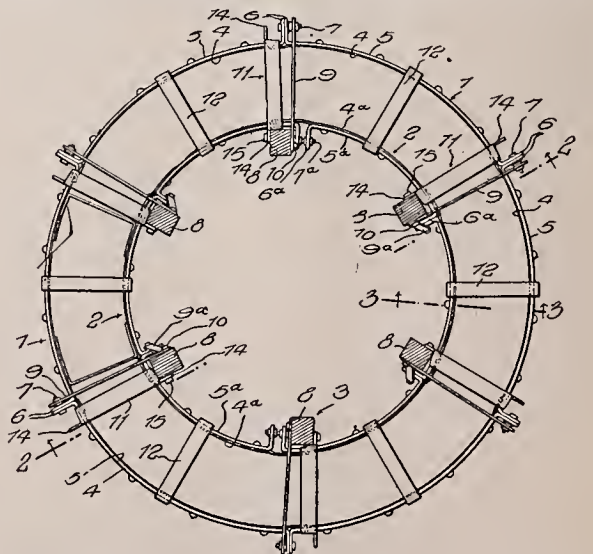
The question of paying farmers who are careful in handling their grain a premium was discussed at length by both farmers and elevator men, and as an outcome of this discussion it was decided that on December 10 another meeting will be held in Sidney, O., at which time each elevator is to be represented, and to bring with them a number of representative farmers from their territory, at which time the question of grading grain, paying premium to the farmer who is careful in his handling and the relation of the farmer to the elevator men and their dependence upon each other is to be thoroughly discussed by speakers representing both sides.

GRAIN TRADE PATENTS

Bearing Date of November 9, 1915

Mold For Concrete Silos and The Like.—William A. Doyle, Dallas, Texas, assignor to Dayle D. Doyle, Dallas, Texas. Filed June 8, 1915. No. 1,159,366. See cut.

Claim: In a mold of the class described, the combination of a plurality of upright standards, a plurality of inclined links connected at their upper ends thereto for vertical shifting thereon, an inner mold member

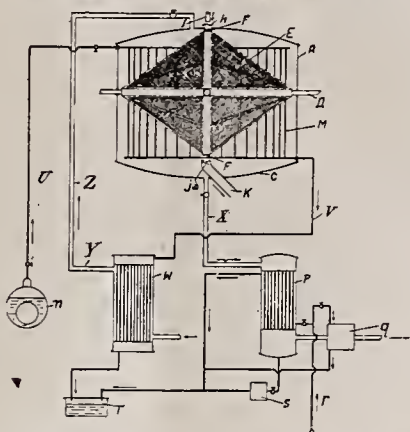


connected to the lower end of said links, additional inclined links connected at their upper ends to the standards for vertical shifting thereon, an outer mold member connected to the lower ends of said additional links, and means for spacing the inner and outer mold members.

Grain Car Door.—Charles A. Creapo, St. Paul, Minn. Filed February 2, 1914. No. 1,159,651.

Grain Drying Apparatus.—Prince Elias Djandieri and Sergei Shapow, Petrograd, Russia. Filed July 21, 1915. No. 1,160,053. See cut.

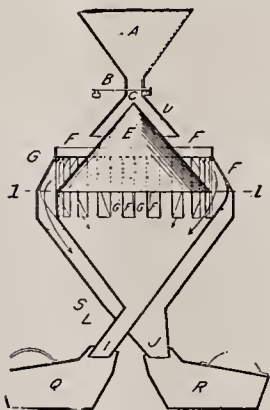
Claim: Grain drying apparatus comprising a closed chamber, heating devices arranged around the interior



of said chamber, a rotatable perforated cage surrounded by said heating devices, means for inserting grain into said cage through the top of said chamber, means for discharging grain from said cage through the lower end of said chamber, and means for rarifying the air in and drawing off vapor from said chamber.

Device for Sampling, Mixing and Blending Granular Substances.—Emil G. Boerner, Washington, D. C. Filed April 14, 1915. (Dedicated to the public.) No. 1,160,036. See cut.

Claim: An apparatus of the character described, comprising a cone provided at its base with a series of ducts, a funnel arranged beneath said cone, spaces of equal distances between said ducts a second funnel overspreading said first funnel and having a spout at

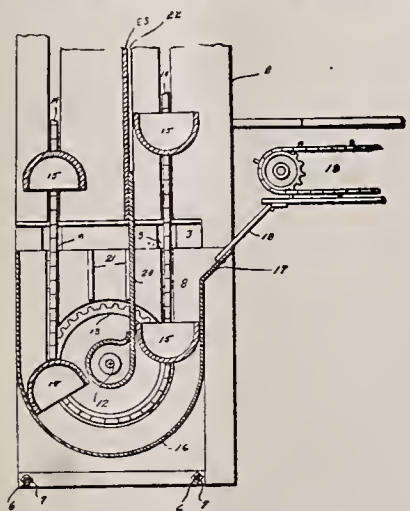


its lower end and its upper end extending above the base of said cone, said second funnel having an aperture near its lower end, a spout passing through said aperture and engaging said first mentioned funnel, passageways leading from the surface of said cone to the interior of said second funnel, a funnel hopper provided with a gate disposed above said cone, a shield attached to said funnel hopper and partly circumscribing the apex of said cone, and supports for holding said respective funnels in fixed operative position with respect to each other.

Bearing Date of November 16, 1915

Elevator.—Jacob H. Morrow, Eureka, Ill., assignor to Hart Grain Weigher Company, Peoria, Ill., a corporation of Illinois. Filed March 17, 1913. No. 1,160,523. See cut.

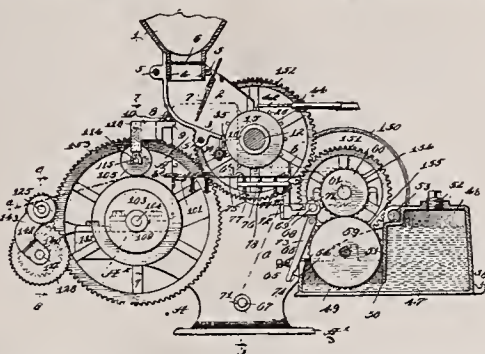
Claim: In a device of the class described, the combination of an elevator housing, chain conveying mechanism operable in the latter, and a boot member supported by the chain conveying mechanism, having insets in the sides thereof affording space for sprocket



wheels, and provided with channels for housing and guiding the chain conveying mechanism whereby the elevator housing and boot are adjustably related to the movable conveyor and sprocket wheel members are housed against entanglement with the grain being elevated.

Machine for Forming Seed Tape.—Edward E. Gray and David E. Gray, Hinsdale, Ill., assignors, by mesne assignments, to American Seedtape Company, Chicago, Ill., a Corporation of Illinois. Filed August 17, 1909. Renewed October 1, 1915. No. 1,160,278. See cut.

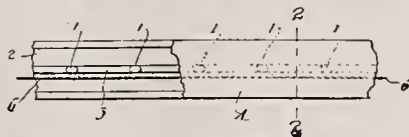
Claim: In a machine for forming seed tape, the combination of a seed receptacle, and pneumatic means for withdrawing seed from said receptacle and depositing them upon the material for forming said tape, said



means comprising a tube or tubes constructed and arranged to be inserted into the seed contained in said receptacle and to be withdrawn therefrom and to be directed upon the material for forming said tape, and means for alternately creating a suction and a fluid pressure in said tube or tubes.

Seed Package.—Edward E. Gray, Plano, and David E. Gray, Highland Park, Ill., assignors, by mesne assignments, to American Seedtape Company, Chicago, Ill., a Corporation of Illinois. Filed August 2, 1912. Renewed October 15, 1915. No. 1,160,279. See cut.

Claim: Seed tape comprising a plurality of thicknesses of fibrous material, means for securing said thicknesses together, seeds secured between thick-



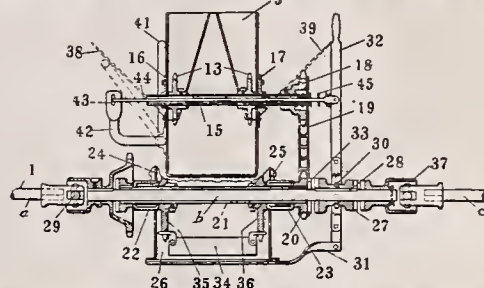
nesses of said tape, the thicknesses of said tape being disposed to prevent puncture thereof when wound upon a reel, and a reinforcing means extending lengthwise of said tape.

Automatic Weighing Apparatus.—Henry Richardson, Passaic, N. J. Filed June 7, 1905. No. 1,160,762.

Bearing Date of November 23, 1915

Grain Elevator.—Alonzo T. Adams and Joseph Dain, Moline, Ill., assignors to Marseilles Company, East Moline, Ill., a corporation of Illinois. Filed February 10, 1913. No. 1,161,758. See cut.

Claim: The combination with an elevator, of power actuated means for operating said elevator but normally out of engagement therewith, a lever adapted to



be manually operated to connect the elevator with the power actuating means, and means to automatically operate said lever to connect the elevator with the power actuating means.

Hay Drier.—Hiram A. Frantz, Cherryville, Pa., assignor of one-half to Benjamin Fish, Sanford, Fla. Filed October 13, 1914. No. 1,161,301.

Bearing Date of December 7, 1915

Portable Grain Elevator.—Benjamin M. Steele, Peoria, Ill. Filed April 13, 1907. No. 1,162,817. See cut.

Car Seal.—George C. Peckham, Los Angeles, Cal., assignor to National Car Seal Company, Los Angeles, Cal., a Corporation of California. Filed March 5, 1913. No. 1,163,554.

Self-locking Car Seal.—Winfred Mudge Brooks, East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y., a Corporation of New York. Filed October 8, 1915. No. 1,163,614.

IN THE COURTS

A petition in bankruptcy has been filed by H. Hahn & Bros. of Percy, Ill.

Bankruptcy was forced upon Dorsey S. Brill, grain merchant and miller at Winchester, Va., by his creditors. The liabilities amount to about \$25,000.

The anti-discrimination case brought against the Atlantic Elevator Company of Minneapolis, Minn., will, it is reported, be dropped by the state of North Dakota.

A suit of voluntary bankruptcy has been filed by Martha A. Therkildson, seed merchant of Ironton, Ohio, with liabilities of \$1,408 and assets of \$217. Fire last May was given as the cause of the bankruptcy.

Lewis & Adcock, grain merchants at Knoxville, Tenn., received judgment for \$30,000 against the Southern Railway Company. The plaintiff claimed that the fire which destroyed its property was caused by sparks from a locomotive.

The Dorsey Grain Company of Fort Worth, Texas, has filed a suit for \$1,000 damages against the Pitman-Harrison Company alleging that the defendant company had made a contract on July 20 to deliver to the plaintiff five cars of wheat on August 15, but failed to do so.

Because of the fact that incorporation papers had not been filed until eight months after the sales in question had been made, the King Seed Company's suit against several Michigan farmers near Battle Creek, Mich., was dismissed. The farmers refused to pay for oats purchased from the seed company.

The Farmers' Elevator Company of Lansford, N. D., had filed suit to recover from the Great Northern road the value of a carload of flaxseed lost during transportation in Minneapolis. The suit decided in favor of the elevator company was brought up to the Supreme Court, which affirmed the lower court's decision.

The annulment of the indictment in which the Trans-Mississippi Grain Company of Sioux City, Iowa, was charged with unfair discrimination in prices paid for grain at different points in Woodbury County, has been secured. The company was charged with paying higher prices at Pierson than at Correctionville.

The Walker Grain Company of Fort Worth, Texas, is the defendant in the suit filed by the Nebraska-Iowa Grain Company of Omaha. The petition alleges that the Fort Worth Company made contracts to buy 60,000 bushels of corn from the Omaha company between January 1 and February 10, 1915, and that when corn was shipped the defendant company re-

fused it. The prices for corn in lots of 10,000 bushels each were from 73.32 to 77.32 cents per bushel and the plaintiffs claim that after the firm's refusal the grain had to be sold for from 65 to 67 cents, entailing a loss of \$5,632.

In the suit of the North Idaho Grain Company vs. Collison, Washington Supreme Court, 145, Pac. 232, a verdict was rendered that the title to hay sold by a person not in possession, but buying to fill a contract, would not pass from him until the seller did some act of appropriation, such as piling it away or setting it apart pending shipment.

J. A. Edwards, grain broker of Chicago, Ill., is charged with engaging in a conspiracy with Walter Sperling, cashier of the bank at Adair, Ill., resulting in the loss of \$150,000 of the bank's money in Board of Trade speculation. He failed to appear to testify of what he knew relative to wrecking of bank and is now charged with contempt of court.

The Morrison Grain Company vs. Missouri-Pacific Railway Company (Mo.), 170 S. W. 404, the grain company claims damages for the loss of a car of corn by fire after the car had been accepted by the railway for shipment. As the plaintiff's allegation was limited to the precise value of the corn, interest on the amount of the recovery was not allowed.

A charge of making a false statement to banks in obtaining credit is laid against the defunct hay and grain firm, J. K. Elliott & Co., operated at Minneapolis, Minn., by J. K. Elliott and G. E. Sanborn. The complaint alleges that on August 14, 1914, the firm represented the assets at \$106,393, while actual assets were \$60,000 and the indebtedness as \$21,000 whereas the total liabilities were \$50,000.

Temporary injunctions have been served by the District Court of Fort Worth, Texas, on the Southwestern Telegraph & Telephone Company from cutting off the long distance service for the Walker Grain Company and the Julian A. Ivy Grain Company of Fort Worth, Texas. The plaintiff alleges that their business with the telephone firm amounts to sometimes \$2,000 per month. As a result they keep close account of the amount due the defendant and because of the difference in regard to amounts due as kept by them and by the telephone company, the latter firm threatens to deprive them of service unless settlement is made on the basis of the account as kept by it. The court's order requires the telephone firm to make connections without prepayment of charges on the same terms as granted plaintiff's competitors and with the same right, privileges and facilities as given to other solvent persons and corporations, engaged in like business.

A judgment for \$712.50 was rendered in favor of the A. J. Poor Grain Company of Kansas City, Mo., in its suit vs. the Western Union Telegraph Company. Last August the grain company was ordered to buy 15,000 bushels of December wheat but message read "50,000 bushels, December wheat." Before error was discovered wheat had declined two cents a bushel and the loss fell on the grain firm. The telegraph company may take the case to higher courts.

In the case of *Shotwell vs. Sioux Falls Savings Bank, South Dakota Supreme Court*, an owner deposited grain in elevator, thus vesting in the operator the right to sell and pledge the grain. The operator shipped it and obtained a bill of lading in his own name as consignor and deposited the money in bank under his own name. It was judged that the bank was liable to the owner for the deposit minus the amount paid out on the deposit of checks of the operator before notice of the owner of his ownership of the grain, but the bank was not entitled to a deduction for an overdraft by the operator, allowed before the deposit was made.

A late report from Auburn, N. Y., says in part: "Testimony for the plaintiff in a hay case from the town of Ira, near here, was heard recently by Judge Hull Greenfield in this city. The lawsuit grew out of the sale of some hay by Mary Wormuth of that township to Barney Hanley. The plaintiff alleges that she sold the defendant about \$250 worth of hay at a stated price, but that he failed to take it at the time he agreed to and that when he finally came to get the hay he declared that it was spoiled and refused to take it. She sues to recover for the value of the hay, alleging breach of contract on the part of the defendant."

A district court in Nevada, Iowa, held that when seed sold by an individual or company is not of quality represented the purchasers may recover damages in the amount of difference in value of crop raised and crop that would have been obtained if seed had been what it was represented to be. Seward Nelson and several other farmers purchased what was supposed to be Mammoth Cluster seed oats, paying for 10-bushels lots at \$2.50 per bushel from L. P. Gunnson & Co. of New York. When the crop was mature, it was found to be of the small, ordinary variety instead of the tall, heavy yielding variety, as it was represented to be, much of it with smut mixed in. The suit was filed and a verdict of \$1,240 passed against the defendant company.

HAY, STRAW AND FEED

William Barnett has opened a feed store at Carrizozo, N. M.

A new feed store has been opened up at Downs, Kan., by A. C. Davis.

A grain and feed store has been started at Ludlow, Vt., by Guild & Co.

A feed and flour store has been opened up at Wayland, Iowa, by J. G. Neff.

Frazier, Mercer & Holloway have opened at New-castle, Ind., a new feed store.

Wilson Bros. have sold the feed business at Ponca City, Okla., to Dunn & Eaton.

A general feed store has been established at Fairbury, Ill., by Geo. W. Westervelt.

It is said that the Western Hay & Grain Company of Denver, Colo., is out of business.

Leo Starless' feed business at Kendallville, Ind., has been purchased by W. S. Eley.

Driman Flour & Feed Company has arranged for a new building at Muskegon, Mich.

A wholesale feed and flour business has been started in Jeanette, Pa., by E. J. Hart.

Bush Bros.' feed business at Flint, Mich., was recently bought by the Buckingham Bros.

Hartman & Dotterer, feed dealers of Bluffton, Ind., have sold their business to John H. Painter.

The feed and coal business has been entered into at Yates Center, Kan., by Frank Drummond.

H. E. Newman has sold his feed business located at Mokena, Ill., to Fred Warning of Frankfort.

Recent negotiations transferred the feed business of C. A. Tenison at Hillsboro, Ill., to Ware Bros.

A feed and flour store has been opened up at Sherry, Wis., by H. W. Swazee and Thomas Evans.

Selleck & Cole, feed and flour dealers of Lake George, N. Y., has been succeeded by G. F. Selleck.

Carl J. Sweeters has entered the wholesale hay business at Banning, Cal. Mr. Sweeters was for-

merly manager for the Globe Mills warehouse at Perris.

A wholesale and retail feed business is to be organized at Berryville, Ark., by Wilson & Pritchard.

A new feed store has been opened up at Genoa Junction, Wis., by John Gavin of Lake Geneva, Wis.

Albert Brom has disposed of his feed and flour store at Lindsay, Neb., to the Farmers' Union Store.

Timothy Billman & Sons have sold their feed business at Sandstone, Minn., to Wm. Heath of Elmore.

A. H. and J. Morovitz and R. Mantell have organized the Bushwick Feed Company at New York, N. Y.

A building has been leased at Evansville, Wis., by George Fisher, who expects to establish a feed store.

The wholesale feed and flour business has been entered into at Fayetteville, Ark., by A. H. Markle & Co.

Farmers near Castana, Ill., have organized a company to handle feed, etc., capitalized with stock of \$20,000.

F. W. Wilson and his son, W. E. Wilson, have opened up a feed, seed and grocery store at Russellville, Ky.

The Casino Grain Company has disposed of its feed store located at Charlestown, N. H., to Kendall Bros.

On January 1, the Des Moines (Iowa) Flour & Feed Company takes possession of the feed and flour establishment of Newcomb Bros. at Mason City, Iowa.

The Standard Flour & Feed Company of Butte, Mont., has been completely organized there, for the purpose of distributing flour, cereals and the manufactured products of the Bozeman Milling Company. The concern will also handle grain and hay in large quantities. The officers of the concern are: President, T. B. Story; vice-president, Charles Vanden-

The HESS Out-Door Conditioner

Here's a Sample Letter

TALLULA FARMERS ELEVATOR COMPANY

Tallula, Ill., Nov. 24th, 1915.

Hess Warming & Ventilating Co., Chicago, Ill.

Gentlemen:—Find enclosed our check for \$91.83 for Grain Conditioner shipped us some time ago.

This conditioner certainly is an improvement for the Country Elevator. The only thing that we regret is that we did not investigate it sooner and install one before this harvest. Any three cars of grain handled thru it will pay for it. We certainly had some grain to test it out with this year, and have done so to the entire satisfaction of our Board of Directors. I called them in one day and showed them some wheat we had in the house, and kept them there in the office a few hours and then showed them this same wheat again after it had been over the Conditioner just once; and they at first refused to believe that it was the same wheat. Then they went out and climbed upon it and watched it work, and were more than pleased with the investment, and each one decided we had lost at least \$1500.00 by not installing it at the beginning of this harvest.

Just say for us, that if anyone who contemplates purchasing one doubts the work it will do, he will soon be convinced if he will go see one in operation.

We are enclosing postal card cuts of house showing the conditioner as we have it installed. If you want the films from which these were made let me know, and I will get them for you.

Yours truly, TALLULA FARMERS ELEVATOR CO.,
S. C. Shaw, Mgr.

THE HESS OUT-DOOR CONDITIONER takes your grain outdoors in the sun and wind and tumbles and blows it till it is sweet and cool. It is not a Drier, but it is a mighty improver of grain. Heating corn is cooled, sweetened and brightened up. All kinds of grain are improved. Requires no heat nor power. Sold on trial and we pay freight both ways if you don't find it valuable. Suitable for every kind of elevator or mill.

Hess Warming & Ventilating Co.

1210 Tacoma Building, CHICAGO

HESS DRIERS and BROWN-DUVEL MOISTURE TESTERS
Are Everyday Necessities This Winter.



hook; treasurer and manager, Frank K. Mutch of Butte, and secretary, C. W. Sweet.

J. B. Hayward & Son has been succeeded in the feed and flour business at Monongahela, Pa., by Hayward & Co.

For the purpose of dealing in grain, hay and feed the Asheville Packing Company was organized at Asheville, N. C.

The feed and flour business of E. W. Burdick of Black Creek, near Appleton, Wis., is now owned by Arthur Sassmann.

Clark & Risberg, feed and flour dealers of Rockford, Ill., built a cement warehouse to be used for storage purposes recently.

At Grafton, W. Va., the Grafton Feed & Storage Company has been organized with capital stock of \$50,000 by J. H. Freeman.

M. J. Hughes' feed store and granary at Versailles, Ky., has become the property of the Farmers' Union Supply Company.

A new feed store, carrying a full line of feeds, grain, hay, straw, etc., has been opened up at Whitesburg, Ky., by B. F. Salyer.

A long stretch of siding at Carnegie, Pa., on the Pennsylvania Railroad has been secured by the Carnegie Feed & Supply Company.

At Portage, Pa., the Jamestown Supply Company has secured a site on which to build a new house for its feed, flour and grocery business.

J. LeRoy Taylor, to operate as the Taylor Feed Company, opened up a feed and flour establishment on November 20 at Platteville, Wis.

Joseph Taylor and W. H. Gilman have opened up a feed establishment at Medford, Minn., in the old creamery recently bought by them.

J. H. Freeman of Grafton has incorporated the Fairmont Feed & Storage Company at Fairmont, W. Va., capitalized with stock of \$50,000.

The stock of the Green Bros.' feed store at Abilene, Kan., has been taken over by L. B. Blachly, who will operate the place immediately.

For the purpose of dealing in feed and fuel the W. L. Palmer Company has been organized at Medway, Mass., capitalized with stock of \$75,000.

At Houston, Texas, the Edmundson-Ford Hay Company has been organized, capitalized with stock of \$20,000. The incorporators of the concern are: W. L. Edmundson, H. H. Ford and F. C. Ford.

THE HAY INDUSTRY IN KANSAS CITY

BY CHAS. D. CARLISLE.*

While Kansas City is famous for its grain market, its livestock market, its Federal Reserve Bank, its wonderful Union Station, and magnificent park and boulevard system, I venture to say that in some parts of the United States it receives more attention on account of the fact that it is the leading hay market of the world, than for any other phase of its high rank among American cities. And yet, perhaps it has never been brought directly to your attention, the magnitude of the business, the scope of territory embraced in its operations, or the large number of people to whom it gives employment.

"The World's Largest Hay Market" is an appellation not to be lightly assumed, but it is generally conceded by the hay trade that Kansas City has gained this distinction. Various factors have contributed to put us in this proud position; first, the geographical situation on the edge of the big surplus producing section on the Southwest, West and Northwest, and the big consuming territory on the North, East and South, makes Kansas City the natural gateway for this particular stream of commerce, the logical point for the assembling of supplies and their distribution.

Alfalfa from Kansas, Colorado, Nebraska, Wyoming, Idaho, Montana and New Mexico is marketed at this center, and distributed throughout the New England States, the Carolinas and Virginias, and Gulf Coast States, as well as all intervening territories.

Prairie hay from Kansas, Colorado, Oklahoma and Nebraska is regularly handled through this market, and we are the undisputed headquarters for this commodity. We have supplied at different times almost every important market in the country, North, East and South, and have exported to Cuba, Isthmus of Panama, the Philippines and to Europe.

This favorable geographical situation is made use of through an unsurpassed system of railroads. These roads radiate in every direction, serving both the producing and consuming sections so well that Kansas City facilities in this regard are absolutely unequalled. And when we get adequate river facilities, an improved channel and regular, dependable schedules, with the consequent reduced rates, which we hope for and confidently expect eventually to procure, it will only strengthen our claim as the World's Greatest Hay Market.

*An address delivered before the Commercial Club of Kansas City on November 17, 1915.

The splendid natural facilities of Kansas City have been taken advantage of to the full by the men engaged in the local trade. Nowhere in America is there such service given to the patrons of this industry as is available in Kansas City.

The history of the industry in this city goes back a number of years; at first it was handled rather as an experiment, and strictly a side line to some other business, then as the growing demand for a market made itself felt, the few dealers organized for mutual helpfulness into the "Kansas City Hay Dealers' Association," in the year 1893.

Since that time the organization has been further perfected, strict trading rules established, and standardized, the fly-by-night element eliminated, and today it is composed of about 60 members representing as many firms, employing a large number of clerks, traffic men, inspectors, weighmasters, and others.

It has introduced and developed the best system of inspection known in any hay market, one which is used as a model by the National Hay Association for inauguration in other cities.

The Association has its headquarters in the Live Stock Exchange Building, where the majority of the hay firms also have their offices, close to the team tracks of the various railroad systems, and in close touch with the great volume of the buyers and shippers of hay, where they can meet and personally inspect every car of hay arriving, and thoroughly inform themselves as to its merits. The Kansas City dealers feel justly proud of their organization, of their membership and methods, and show this by the large amount of capital invested in the industry.

They have especial reason to be proud of the part they have played in the introduction and development of the use of alfalfa, the greatest of all forage plants. Begun in a timid way, with a single car in 1898, sold in small quantities, receipts increased gradually until they reached 2,000 cars 10 years ago, and now have reached about 15,000 cars during the present year. Total acreage alone in Kansas in 1915 is 1,359,000 acres, having increased 50 per cent in the last five years, and this crop has advanced to third place in the important crops of the state, wheat and corn alone being more valuable.

The total receipts of hay on this market in 1895 were 8,000 cars, and steady gains have been recorded practically every year since, with 14,000 in 1900; 15,000 in 1905, and 23,000 in 1910, while for the crop year of 1914-15, 35,000 cars were required. In addition to this, there were about 10,000 cars handled by Kansas City firms direct from producer to consumer, without passing through this market.

The largest receipts for any month were 4,032 cars in April, 1915; for any single week were 1,117 cars for the week ending April 3, 1915, and for any single day, 249 cars, March 29, 1915.

When it is considered that each of these cars was received, located on market tracks, plugged, in-

spected, sold and moved, generally within 48 hours, and without demurrage charges in 95 per cent of cases, the magnitude of the trade and the adequacy of the facilities are realized.

ST. LOUIS HAY MARKET

Martin Mullally Commission Company of St. Louis, Mo., say, December 11: Timothy hay has been ruling strong with a good demand for No. 1 and choice which have been the minor portion of the offerings. The movement has been very free and our market kept well cleaned up right along and is in good condition for fresh arrivals. We advise prompt shipments as it is well to take advantage of the prevailing prices which are good and better than they may be later on as the receipts of hay will increase some if the weather is favorable.

"Pure clover hay it in light offerings and the demand good for No. 1 and choice, though there is practically no inquiry for No. 2 and lower grades. Most of the clover this year is very poor and it is impossible to realize satisfactory prices for poor clover.

"Prairie hay continued steady and about unchanged with a good demand for No. 1 and choice hay at the prevailing prices. The demand is limited for No. 2 and lower grades.

"Alfalfa hay has ruled steady with an excellent demand for No. 1 and choice green, fair demand for the medium and low grades. The movement here has been very free and the market at present is practically bare of all grades and in a good condition for fresh arrivals. We advise prompt shipments."

J. C. PEDERSON & CO.

Commission Merchants

HAY AND GRAIN

Send for our Quotation Letter
Quick Returns and the Best of Service

327 So. La Salle St., CHICAGO, ILL.

HUFFINE & COMPANY

Wholesale HAY and Grain

(Members National and Kansas City Hay Dealers Association)

Established 1888.

Kansas City, Mo.



Carlisle Commission Co.

(Established 1889)

WHOLESALE HAY AND GRAIN

736-738-746 Live Stock Exchange Building

KANSAS CITY, MISSOURI

(The World's Greatest Hay Market)

If you have Hay we want it—if you want Hay we have it. We have unequalled facilities, the largest established trade and outlet. **Lit**eral advances on consignment. Kansas City handling charges the lowest, service **the** best.

GET OUR DELIVERED PRICES

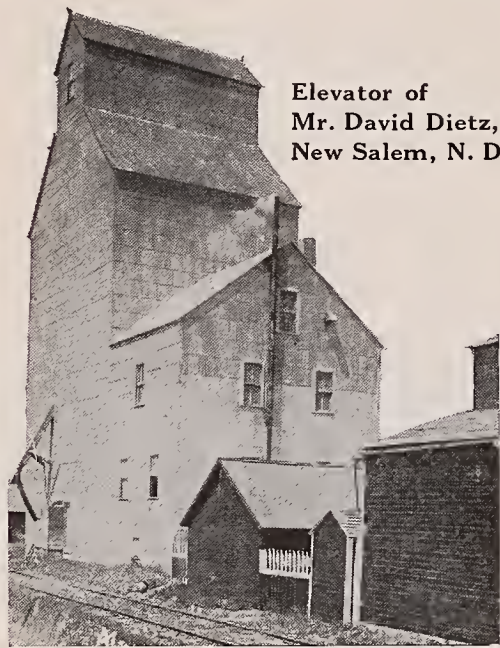


Elevator Man Makes Money Milling Flour

Mr. David Dietz, of New Salem, North Dakota, Puts in "Midget" Marvel Mill and Routs Competitors — Makes Big Profits!

Here is another case where an elevator man turns wheat into real money, turns it into good big profits by installing a "Midget" Marvel Flour Mill in connection with his elevator.

His profits run as high as \$2.70 to the barrel or more than 50 cents a bushel. In fact, he paid for his mill, lock, stock and barrel in about eight months.



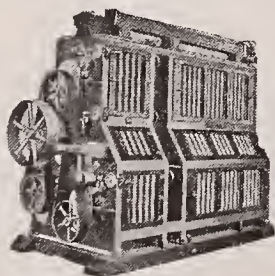
Elevator of
Mr. David Dietz,
New Salem, N. D.

But Mr. Dietz is not the only elevator man who is "cashing in" with this wonderful mill. Hundreds of others all over the country are turning waste power, space, and labor into big profits with practically no increase of overhead.

And what these men are doing, you or any other red-blooded man can do. There's a big opportunity waiting for grain and elevator men in this wonderful flour-milling proposition.

It is a complete flour mill system within itself—all in one frame, requiring very little space, power or attention to operate. No wonder it pays so handsomely.

Write us today for our interesting free book, "The Story of a Wonderful Flour Mill" which tells all about this marvelous "Midget" Marvel Mill wonder that is revolutionizing the milling business. It gives estimates, prices, terms, etc.



THE "MIDGET" MARVEL

Anglo-American Mill Co.

INCORPORATED

445 Fourth St., Owensboro, Ky.

GRINDING TESTS are being conducted by Mr. J. T. Lawler at the San Francisco Exposition in the Palace of Food Products Building, S. E. corner Court Place, with the "Baby Midget" and three "Midgets" on exhibition.

FIELD SEEDS

The L. Allen Seed Company of Trilby, Fla., has moved its store to Sanford.

The American Seedtape Company's new factory at Plano, Ill., has been put into operation.

The G. D. Sutton Company of Mason City, Ill., is purchasing all the good seed corn that is available.

Northrup, King & Co., of Minneapolis, Minn., have purchased a site on the Great Northern & Northern Pacific Railway on which to erect a new warehouse and cleaning plant. The Hickock Construction Company has the contract.

The V. A. Peterson Alfalfa Seed Company of Williams, Cal., has purchased a carload of alfalfa seed to be shipped direct to Australia.

The officers of the Blue Earth County Pure Seed Association met at Mankato, Minn., on November 27 to arrange for the annual fair there next February.

J. H. Bradley, A. L. Bradley and H. J. Bradley are the incorporators of the Illinois Seed & Nursery Company of Makanda, Ill. The capital stock of the concern amounts to \$10,000.

The Lubbock Sudan Grass Seed Association has been formed at Lubbock, Texas, with \$54,000 capital stock. The incorporators of the company are P. F. Brown, R. Martin and W. A. Bacon.

The Planters' Seed Company recently opened up its store at Americus, Ga., to deal in a complete line of seeds. The company is composed of Dr. S. F. Howell, T. M. Furlow and W. C. Gardner.

A county organization has been formed at Mason City, Iowa, to handle the seed crop situation for 1916 crop. Reports indicated that a great portion of the state of Iowa was without 1916 seed corn.

Articles of incorporation have been filed by the William Vollbracht Company at Quincy, Ill., recently to conduct a seed, grain and implement business at Camp Point, Ursa and Barry, Ill. The capital stock of the corporation is \$10,000.

Frank C. Hubbel, Ralph W. Munger, Edwin J. Ferguson, Daniel O. Jones and Chas. L. Darlington are the incorporators of the new Alpha Seed & Grain Company operating at Alpha, Ohio. The company's capital stock amounts to about \$12,000.

Additional equipment has been installed in the plant of the Milwaukee Seed Company, formerly the Rosenberg & Lieberman firm, of Milwaukee, Wis., increasing the capacity 25 per cent. The Huntley Manufacturing Company of Silver Creek, N. Y., has installed the machinery.

The seed exhibit of Iowa at the Panama Pacific Exposition is commanding a great deal of attention. The corn is to be put up for sale and California ranchmen and farmers are anxious to get some of the seed. There are 400 bushels of it and it will most likely bring a good price.

In the corn belt of Iowa, farmers are paying from 20 to 30 cents for sweet clover seed while they could gather the wild sweet clover seed which grows along the roads and railway right-of-ways. One boy, working 14 hours, gathered 130 pounds of the seed from along the tracks. This seed sold for 25 cents per pound, netting him \$32.50.

A statement issued recently by a Michigan college professor, says: "There seems to be a general dearth of seed corn in Northern states. We are not inclined to be alarmed, but unless we locate all that is available we are going to be up against it for 1916. We are endeavoring to locate all the good seed for the benefit of the many farmers who will write to us for seed next spring when they are ready to plant."

The seed industry is rapidly becoming an important factor in the agricultural industry in Idaho. It is estimated that \$165,000 will be paid to the farmers in the valley section between Roswell and Upper Deer Flat for red clover, alfalfa and alsike seed grown by them. One farmer in the Long Valley recently made a statement that he estimated the average production of timothy seed on his farm at 6½ bushels to the acre.

The American Mutual Seed Company is a new organization, incorporated under the state laws of Illinois for \$60,000, with headquarters at 43 S. Robey St., Chicago, Ill. John F. Summers is secretary and manager. Mr. Summers was engaged in the seed business at Malvern, Iowa, several years ago, is a graduate of the Ames, Iowa, Agricultural College, and for the past few years has been conducting the large farm estates of Carl S. Vrooman, Assistant Secretary of Agriculture of the United States. The firm is backed by practical seedsmen of good business ability and is ably financed and has a bright

future. They are engaged in the general mail order seed business, and, it is said, will have the proud distinction of being the first strictly exclusive mail order seed firm in Chicago.

At the annual meeting of the Holmes Seed Company at Harrisburg, Pa., the following officers were elected: President, B. F. Meyers; vice-president, George A. Gorgas; secretary, Frank R. Leib; treasurer, H. W. Hill, and general manager, H. L. Holmes.

TOLEDO SEED MARKET

Southworth & Co., of Toledo, say, December 11: "Clover seed has run true to December form. This month is a waiting period. Fluctuations usually moderate. Prices have advanced from November expiration. Any advance from current levels will probably be moderate. The real demand will not come until the spring. Central states scarcity guarantees high prices. Some foreign seed has been substituted. More is expected. New York imports of seed last week 6,530 bags, much of it clover. New York exported 940 bags clover, Philadelphia 256 bags, Baltimore 175 bags. December movement very light to date. May be lightest receipts of any December since 1907, when they were 4,900 bags. January receipts usually lighter than December. Prices are now highest since 1911. The test will come with the spring demand."

CRIMSON CLOVERSEED IMPORTS POOR IN QUALITY

Heavy importations of crimson clover seed of low germination have caused the United States Department of Agriculture to issue a warning as to ascertaining the germination of the seed. Otherwise many crop failures are sure to result from using dead seed.

Since July 15, 1915, 26 lots of crimson clover seed have been imported. In three of these lots, containing enough seed to sow over 2,850 acres, there was no seed that could be expected to grow under field conditions. In five other lots, aggregating enough to sow 8,600 acres, the seed only germinated from 45 to 50 per cent. The importation of these lots, together with 1,000,000 pounds of seed of low germination imported during May and June, makes it more important than ever that the germination of the crimson clover seed should be known before sown.

OVERCOMING EUROPE'S DEFICIENCY

Because of the inability of much of Europe to send its usual quantity of alfalfa seed to this country, alfalfa growers have been more than usually interested in the seed crop from the home fields. In many sections where good forage crops of alfalfa are grown, the seed crop has been short owing to the wet weather preventing proper pollenization. In the dry regions of the West and Southwest, however, much superior seed has been secured and is being marketed at a good price.

Grain and Seeds

SEEDS WANTED

Mammoth Clover Seed, true to name. W. G. TRUMPLER, Tiffin, Ohio.

FOR SALE

Reid's Yellow Dent seed corn, 1914 crop. Order now. CHAS. J. O'NEILL, Manteno, Ill.

DAMP CORN WANTED

One hundred cars new corn to dry in transit. THE WADSWORTH FEED CO., Warren, Ohio.

GRASS SEED FOR SALE

Parties wanting Sudan grass seed, communicate with LUBBOCK GRAIN & COAL CO., Lubbock, Texas.

SEEDS

SEEDS FOR SALE

Red Clover Seed. AYE BROTHERS, Blair, Neb.

FOR SALE

Sunflower Seed. Car lots and less. EBERTS GRAIN CO., Nabb, Ind.

FOR SALE

Sudan Grass Seed. Special price on car lots. Also Milo Maize, Kaffir and Feterita. WEAVER BROS., Lubbock, Texas.

SEEDS WANTED

Clover seed, red, mammoth, sweet, alfalfa. Also timothy and soys. O. M. SCOTT & SONS CO., 200 Main St., Marysville, Ohio.

WANTED

We are in the market for clover seed, screenings, tailings, and badly bucked clover seed. Send samples to THE KING SEED CO., North Vernon, Ind.

GRAIN FOR SALE

Wanted, buyers of white, hard and red milling wheat to advise their wants. We can supply you. FARMERS' GRAIN CO., Railway Exchange, Denver, Colo.

SEEDS FOR SALE

We are prepared to book your orders for the following seeds: Alfalfa, Cane, White and Yellow Maize, Kaffir, Feterita, German, Golden, Siberian, big Millets, in carload lots or mixed cars. We live in the heart of district where the above seeds grow. Sample sent on request. L. A. JORDAN SEED CO., Winona, Kan.

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A wholesale and manufacturing concern with an established business, located in a large jobbing center in the South, will add a wholesale seed department after the first of January, 1916, and wants a live, energetic man to take charge of same. All communications strictly confidential. A, Box 12, care "American Elevator and Grain Trade," Chicago, Ill.

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Perennial Rye Grass, Italian Rye Grass and Crested Dogstail. Highest grades re-cleaned and tested. C.i.f., U. S. Ports. Samples and offers on request. McCLINTON & CO., Belfast, Ireland.

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Record Clover Prices?

With demonstrated shortage in central states and northwest already drained, light receipts are expected. Similar conditions produced record prices in former years. Will this season establish new record? For latest news bearing on the situation, read our Daily Letter, published in Toledo Daily Post. Sample copy on request.

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Do not conflict Wisconsin-Grown Seeds—especially Red Clover—with imported seeds, which will be extensively handled this year by many wholesalers.

Some of the foreign samples we have inspected are fair, but the majority show the presence of a large amount of impurities—especially Buckhorn—and are otherwise below the standards we offer the trade and which we find in Wisconsin-Grown Seeds.

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"The Live-Wire Clover House"

Wisconsin Seeds

Famous because they are raised and sold under most rigid seed laws



FIRES-CASUALTIES

The elevator of J. H. Dugan & Son, located at Harveyville, Kan., was burned.

James Brown Feed Company's plant at Pittsburgh, Pa., was damaged recently by fire.

The Bade Elevator, located in Lake City, Minn., was damaged by fire not long ago.

The Wheatland Elevator Company's plant at Amber, Okla., was totally destroyed by fire.

Jas. Hanlin was smothered to death in a grain bin in the Farmers' Elevator at Tyndall, S. D.

A. J. Crawford's feed and flour establishment at Bevier, Mo., was damaged by fire not long ago.

Slight damage was done to the warehouse of the Farmers' Elevator Company at Judson, N. D., on November 25.

The Iowa Grain Company suffered a loss when its plant at Cedar Rapids, Iowa, was damaged on November 16 by fire.

About \$50 worth of tools and other articles were stolen from the elevator plant of the Cleveland Grain Company at Sheldon, Ill.

Fire consumed the Cargill elevator at Erie, N. D., recently. The plant was operated and owned by the Imperial Elevator Company.

Yeggmen blew up the safe in the elevator plant of the Vandalia Railroad at Colfax, Ind., with nitroglycerine, but obtained no booty.

Ben J. Brumlove's feed place at Louisville, Ky., was damaged by fire entailing a loss of \$3,000, part of which was covered by insurance.

A heavy loss was sustained on November 17 by the Peerless Flour Mills Company operating a 17,000 bushel elevator at Canon City, Colo.

It is thought that spontaneous combustion caused the fire which damaged the plant of the Western Grain & Feed Company at Boise, Idaho.

Miner-Hillard Company's grain plant and flour and feed mill at Scranton, Pa., burned November 18. The cause of the fire was defective wiring.

The entire office of the elevator at Buckingham, Iowa, was burned together with its contents recently. The origin of the fire is unknown.

The Falvey White Grain Company's warehouse with its contents at Lufkin, Texas, burned with a loss of \$12,000, partially covered by insurance.

When a flue in the engine room of the elevator of the E. B. Conover Grain Company at Dawson, Ill., exploded, Lloyd Young was burned severely.

The Hermitage Elevator, located at Nashville, Tenn., burned with a loss of \$500. The Illinois Central and Southern Railroads are the proprietors.

E. S. Dixon & Co.'s stock feed elevator at Houston, Texas, was destroyed by fire with a loss of \$25,000 on November 18. The origin of fire is unknown.

A portion of the brick office building of the Reynolds Farmers' Elevator Company of Reynolds, N. D., was damaged by high winds. One corner of the roof was torn away.

The gasoline engine in the elevator plant of the F. B. Six Grain Company at Alexander, Ill., blew up on December 4. No one was injured and the engine will be repaired.

H. Wells' grain elevator located at Washer (mail to Krebs), Okla., together with 600 bushels of corn owned by the A. P. Porter Grain Company of Kansas, burned with a loss of \$5,000.

The elevator of Beggs & Ensley at Cady Station (mail to Springfield), Ill., burned. The fire was started from sparks from a passing engine and entailed a loss of about \$10,000.

While tightening some burrs on the machinery in the elevator of the Sibley Grain Company, of Gibson City, Ill., Aug. Anderson let a heavy wrench slip which struck him in the mouth, breaking two teeth.

A large grain elevator and several other buildings were burned on December 1 on the farm of Fritz Gruhl near Moorhead, Minn. About 5,000 bushels of wheat, 10,000 bushels of oats and 6,000 bushels of potatoes were also consumed. The loss is estimated at between \$18,000 and \$20,000 partially covered by \$8,000 insurance.

Fire completely destroyed the large grain elevator of the Kuehl-Lammers Grain & Coal Company at Cedar Rapids, Iowa, with a loss of \$41,000, fully covered by insurance. Besides the grain elevator, the contents, amounting to 35,000 bushels of oats and a large amount of other grain, were consumed by the flames. The fire is supposed to have been caused by spontaneous combustion due to the

green condition of oats on the loading platform. The structure was of wooden construction and the flames spread so rapidly that they were beyond control when firemen arrived.

On November 24, the Farmers' Elevator located at Colgate, N. D., burned. The contents of the structure, 20,000 bushels of grain, were also consumed. When fire was discovered, it had already gained such headway that it was impossible to stop it.

The grain elevator of H. Klyce & Co., near Memphis, Tenn., was damaged by fire. The loss entailed amounted to \$1,000. The fire was first discovered in the basement of the plant.

A quantity of baled hay in the barn of T. F. Kenny, hay dealer at 161-163 Myrtle Avenue, Buffalo, N. Y., was destroyed by fire recently. The loss on the hay is about \$4,500. The barn was damaged \$500.

John C. Jacobs, an employe of the Hunting elevator at Everly, Iowa, narrowly escaped death recently. While descending the grain pit, a line shaft nearly stripped him of his clothing but he was rescued before bodily injury was suffered.

On December 10, the main elevator of the Anchor Line at Erie, Pa., burned. The fire was of unknown origin and consumed the entire plant and the 840,000 bushels of wheat stored in the structure. Incendiary origin is alleged, most of the grain being destined for export to the Allies.

For Sale

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS AND MILLS

FOR SALE

A 25,000-bushel grain elevator, 22 miles from Minneapolis on C. M. & St. P. Railroad, in the village of Lakeville, Minn. The elevator is in good condition, with hopper and dump scales, also a gasoline engine and ticket office. Will sell cheap. Inquire of J. J. HYNES, Rosemount, Minn.

FOR SALE

Because of old age, will sell the Horicon Elevator and Feed Mill; 40 h. p. engine; automatic Fairbanks scales; electric lights. It is almost new and one of the neatest and best arranged to be found anywhere. If wanted, don't write but come and see me. J. W. BAILEY, Ripon, Wis.

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FOR SALE

Nebraska elevator of 40,000 bushels' capacity, stone and cement foundation. Ten-horsepower Lauson Gasoline Engine; Barnard & Leas Separator; Richardson Automatic Scale and Howe Wagon Scale. Machinery in first-class condition. Three acres of ground. On main line Union Pacific R. R., in heart of Nebraska's wheat belt. Have other business matters to attend to. Write for particulars to F. A. KIMBROUGH, Shelton, Neb.

ELEVATORS AND MILLS

KANSAS ELEVATOR FOR SALE

Only elevator at good grain station. J. JACOBSON, Formoso, Kan.

MACHINERY

FOR SALE

One 7x14 three-pair-high Nordyke Corn and Feed Roller Mill, in first-class running condition, being replaced with a 9x24 mill. EATON MILLING CO., Eaton, Ohio.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATOR WANTED

At good shipping station. Give full particulars and price. H. W. DORSEY, 1614 Edgewater Ave., Chicago, Ill.

FLOUR AND MILL FEEDS

Mixed cars of flour and mill feeds in 100-pound sacks are our specialties. Would like to send you a trial order to convince you of the superiority of our products. ANSTED & BURK CO., Springfield, Ohio.

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Wanted: Second-hand bags; best prices paid. WILLIAM ROSS & CO., 409 N. Peoria St., Chicago, Ill.

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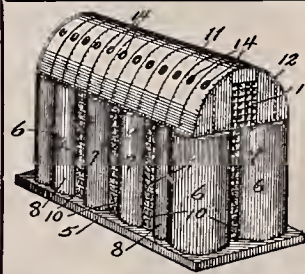
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OBITUARY

Fire damaged the elevator of the Churchill Grain & Seed Company at 1037 Seneca Street, Buffalo, to the extent of nearly \$1,000. The damage was covered by insurance carried. A hot journal is thought to have been the cause of blaze.

Fire started in the big grain elevator plant of the Crowell Elevator Company at Omaha, Neb., not long ago. Had it not been for the sprinkling apparatus installed, the entire plant would have been consumed. The entire loss was fully covered by the insurance.

In a recent conflagration, the two warehouses of Scott, Magner & Miller, grain and hay dealers of San Francisco, Cal., were consumed and a third warehouse badly damaged. The fire started in the rear of the Western Planing Mill. Loss is partially covered by insurance.

C. E. McQuade narrowly escaped death at Dysart, Sask., at the grain elevator located there. Mr. McQuade went into the elevator, and while standing near the man-lift, that apparatus fell carrying with it a weight of 250 pounds. Fortunately McQuade was only slightly injured.

The Farmers' Co-operative Elevator Company of Farmingdale, Ill., suffered the loss of its plant, valued at \$5,000. Plans have been made for the immediate reconstruction. The origin of the fire was unknown, although it possibly started from sparks from a passing engine.

A loss of about \$5,000 was suffered when fire burned the grain elevator of H. Wells, located at Washington, Okla., late in November. About 600 bushels of corn owned by the A. P. Porter Grain Company of Kansas City, Mo., were also burned. The origin of the fire is unknown.

Carelessness on the part of an employe imperiled \$40,000 worth of seed, and the plant of the Minneapolis Seed Company at Minneapolis, Minn. One of the workmen left a lighted pipe in the pocket of a coat which hung on the wall. The coat caught fire but blaze was put out before any damage was done.

The elevator located at Nacogdoches, Texas, burned on December 4 with a loss of about \$10,000. The plant was erected less than a year ago at a cost of about \$20,000. The warehouse, which contained a large amount of grain, was saved although about 50 tons of grain in the elevator was consumed.

On November 17, Eugene Hollis, an employe in the Boston Elevator Company's plant at Brocton (r. f. d. to Garland), Ill., fell from the top of the elevator and was probably fatally injured. On the same day another employe, B. W. Howard, had a narrow escape from death. While in a large crib raking down corn for the sheller, the corn caved, burying him under a mass of 5,000 bushels. After 15 minutes he was rescued by other workmen.

Joel C. Mills, a pioneer grain dealer and miller, died at Evansville, Ind.

J. Edw. Lamb died at Greenfield, Mass., not long ago. He was a western grain dealer.

Paul Hagen, a grain dealer in Fortville and Indianapolis, Ind., died recently aged 47 years.

Aged 76, J. N. Bardoner, engaged for many years in the feed and flour business at Allison Park, Pa., died there.

George Pearson, office manager for Smith Murphy Grain Company of Winnipeg, died suddenly on November 21.

John D. Westfall died at Troy, N. Y., at the age of 77 years. Mr. Westfall was a retired grain and feed merchant there.

James Robertson passed away at Cherokee, Iowa, in his 83rd year. Mr. Robertson was a pioneer grain and lumber dealer.

Duncan J. McCallum, connected with the grain brokerage firm of McCallum & Vanatter of Saskatoon, Sask., died suddenly.

Heart trouble caused the sudden death of Joseph C. Kendall of Kendall Bros., grain dealers at Ridgefarm, Ill., at the age of 55 years.

Alexander G. Knapp, hay and grain dealer at Omaha, Neb., died after suffering from an illness for two years. He was 75 years old.

J. A. Burgess was instantly killed in an automobile accident recently. He was buyer for the Hanson Grain Company of Moosejaw, Sask.

At the age of 34 years, H. D. Mowery died at Linby, Iowa. He was a member of the grain firm of H. D. Mowery & Co., operating there.

Acute indigestion caused the sudden death of Herbert S. Bliss of the Dalton-Gould Company, grain commission firm of Minneapolis, Minn.

On November 15 apoplexy caused the death of Albert A. Engle, who for more than 30 years was engaged as grain and feed dealer at Buffalo, N. Y.

Culver Ferguson passed away at Brooklyn, N. Y., aged 78 years. Mr. Ferguson was president of the Brooklyn Hay & Grain Company of that place.

Stephen Gilman, grain dealer and miller of Neligh, Neb., died in November. He was formerly of the old firm of Dow, Gilman & Hancock of Davenport,

Iowa, and was prominently associated with the grain and milling interests in the Middle West.

Wm. F. Meader died at Minneapolis, Minn., not long ago. He was a charter member of the Minneapolis Chamber of Commerce and a retired grain merchant.

John Stockdale, member of the grain firm of Stockdale & Maack Company of Walcott, Iowa, died in a Chicago hospital not long ago. His widow and one son survive him.

David Schwartz, pioneer grain man and miller, died at Galena, Ind., aged 89 years. For 50 years he had been engaged in grain business throughout that part of the state.

Charles Creighton, a broker on the Chicago Board of Trade, died on December 1 at the home of his father in Oak Park, Ill. He is survived by his widow and a daughter.

W. E. Browning passed away at his home in Indianapolis, Ind. Mr. Browning had been engaged in grain and milling business at Alexandria and Washington for many years.

Michael McEnnis, one of the oldest members of the St. Louis Merchants' Exchange, died November 21. Mr. McEnnis was 82 years of age and was president of the Exchange in 1881.

After a four weeks' illness, Norval E. Wheaton, a member of the Chicago Board of Trade and connected with Adolph Kempner & Co., died at his home in Chicago, Ill. He leaves his widow, one son and two daughters.

On November 26, at the age of 58, William P. Brackett, a charter member of the Chamber of Commerce of Minneapolis, Minn., died. Mr. Brackett was a veteran grain man and a resident of Minneapolis since 1858.

On November 23, Edward H. Noyes, member of the Chicago Board of Trade, dropped dead on the floor of that institution. He was a prominent man in the grain trade of that market. He started in the grain trade with Chandler, Pomeroy & Noyes. This firm failed in 1872 but later he organized the firm of E. H. Noyes & Co. His widow and two sons survive him.

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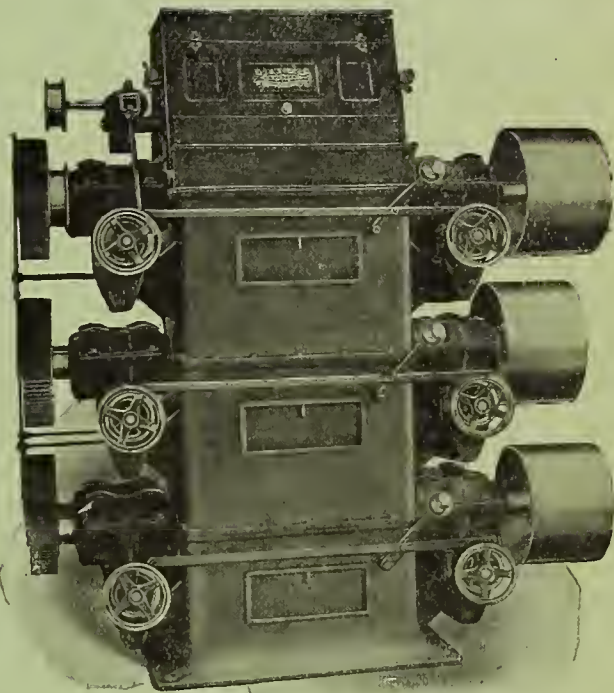
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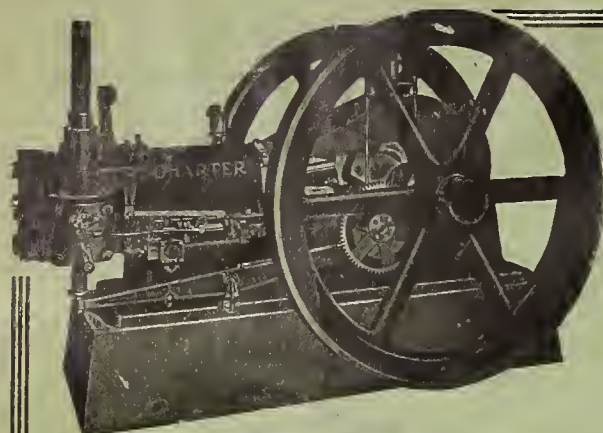
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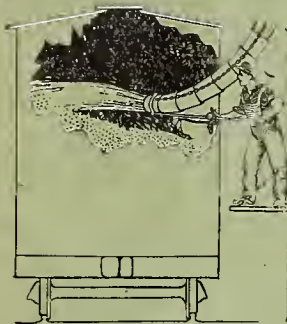
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